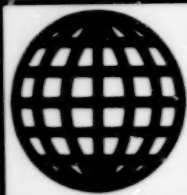


JPRS-ULS-88-015
4 AUGUST 1988



**FOREIGN
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Study of Thresholds of Vestibular Apparatus to Linear Accelerations by Registering Evoked Potentials of Cerebral Cortex

18400288b Kiev ZHURNAL USHNYKH, NOSOVNYKH I GORLOVYKH BOLEZNEY in Russian No 1, Jan-Feb 88 (manuscript received 4 Mar 87) pp 48-52

[Article by V. G. Bazarov and V. I. Nazarenko, Laboratory of Clinical Audiology and Vestibulology (head, Professor V. G. Bazarov) Kiev, Scientific Research Institute of Otolaryngology imeni A. I. Kolomiychenko (director, D. I. Zaboltnyy, candidate of medical sciences)]

[Abstract] A study of the possibility of using long-latent evoked potentials of the cerebral cortex of man in response to subthreshold and threshold linear acceleration for objective assessment of vestibular sensitivity included 32 healthy subjects ranging in age from 23-36 years and 3 persons with vestibular areflexia ranging in age from 28-44 years, who underwent acceleration tests. Linear accelerations of different degrees produced different sensations in the subjects. Accelerations of up to

7-8 cm/s^2 did not cause sensation of movement in the subjects. Acceleration of 8-12 cm/s^2 caused sensations of motion but subjects could not determine its direction. This was assumed to be the initial threshold of stimulation of the vestibular apparatus or undifferentiated threshold of acceleration. Increase of acceleration to 17-18 cm/s^2 caused sensation of motion with subjects correctly identifying the direction. The mean value of subjective undifferentiated threshold of acceleration was $8.3 \pm 0.6 \text{ cm/s}^2$ and the differentiated threshold was $17.7 \pm 0.5 \text{ cm/s}^2$. At an acceleration on the order of 10-14 cm/s^2 all subjects experienced a sensation of motion in a direction opposite to the true motion. The first signs of slow auditory evoked responses [SAER] appeared at subthreshold accelerations of about 4-5 cm/s^2 . The latent periods of SAER decreased with the increase of acceleration. The study confirmed the possibility of determining objective characteristics of sensitivity of the vestibular system and of assessing the resistance of subjects to motion sickness. References 12: 6 Russian; 6 Western.

02791

Synthesis of DNA of Bacterial Vector Plasmid pBR322 in Isolated Maize Mitochondria

18400211a Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298, No 2, Jan 88 (manuscript received 3 Jun 87) pp 502-504

[Article by Yu. M. Konstantinov, V. A. Podsoznyy and G. N. Lutsenko, Siberian Institute of Plant Physiology and Biochemistry, Siberian Department, USSR Academy of Sciences, Irkutsk]

[Abstract] The potential of using intact mitochondria and mitochondrial DNA in genetic and cellular engineering experiments makes studies of the genetic system of higher plants mitochondria a very interesting subject. The mitochondrial genome of higher plants contains high molecular weight DNA ("chromosomal") as well as a number of low molecular weight circular molecules, plasmid-like DNA's. A study was made of the potential of using bacterial plasmids as templates for DNA synthesis in a genetic system of intact plant mitochondria. In this work, the possibility of synthesizing DNA of the vector plasmid pBR322 in isolated maize mitochondria was studied using mitochondria isolated from 3-day-old maize sprouts. The results showed that the DNA of bacterial plasmid vector pBR322 possessed marked template activity in the *in vitro* synthesis of DNA in intact mitochondria of maize sprouts. It is possible that this is due to the presence of plasmid-like DNA in the genome of these organelles. This model system could be used to study replication and transcription of prokaryotic genetic material in plant mitochondria as well as a membrane delivery system for recombinant DNA in plant cellular engineering experiments. Figures 2; references 14: 5 Russian (1 by Western authors), 9 Western (2 by Russian authors).

7813/9604

Acyclic Analogs of Nucleosides. Synthesis of Chiral 1,5-Dihydroxy-4-methyl-3-oxapent-2-yl Derivatives of Uracil

18400278a Riga KHIMIYA GETEROTSIKLICHESKIKH SOYEDINENIY in Russian No 1, Jan 88 (manuscript received 23 Jul 86, revised manuscript received 15 Dec 86) pp 91-94

[Article by C. N. Mikhaylov and N. B. Grishko, Institute of Molecular Biology, USSR Academy of Sciences, Moscow]

[Abstract] The interest in acyclic analogs of nucleosides is due to the unique antiviral properties of some of them. Oligonucleosides based on acyclic derivatives are highly resistant to nucleases. In view of this, this article described methods of synthesizing 1,5-dihydroxy-4(R)-methyl-3-oxapent-2(R and S)-yl derivatives of nucleic bases with uridine derivatives as an example. Readily

available 2',3'-O-isopropylidene uridine and its alpha-anomer were used as starting compounds. After production of 5'-desoxyuridine from 2',3'-O-isopropylidene uridine, periodate oxidation with subsequent reduction by sodium borohydride provided the 4(R),2(R)-isomer sought. Alpha-uridine acetone was converted to the 4(R),2(S)-isomer by an analogous procedure. The study showed the advisability of using derivatives of natural nucleosides and their alpha-anomers to synthesize chiral acyclic analogs of desoxynucleosides. Figure 1; references 13: 4 Russian; 9 Western.

02791

Introduction of Tritium Label Into Nucleoside Analogs Modified by Carbohydrate Residue

18400278b Riga KHIMIYA GETEROTSIKLICHESKIKH SOYEDINENIY in Russian No 1, Jan 88 (manuscript received 4 Aug 86) pp 95-99

[Article by L. A. Yakovleva, G. P. Akulov, A. I. Nagorskiy, N. A. Patokina, Yu. L. Kaminskiy and R. A. Zhuk, Radium Institute imeni V. G. Khlopin, Leningrad; Institute of Organic Synthesis, LaSSR Academy of Sciences, Riga]

[Abstract] Analogs of natural nucleosides, modified by a heterocyclic fragment or a carbohydrate fragment are being studied extensively as antiviral and antitumor preparations. This article described synthesis of tritium-labelled analogs of pyrimidine and purine nucleosides, modified by a carbohydrate residue: 1-(β-D-arabinofuranosyl)-[5-³H]cytosine, 1-(β-D-arabinofuranosyl)-[5-³H]uracil, 1-([3-³H]tetrahydrofuryl-2)-5-fluorouracil ([3-³H]fluoraur), 9-(β-D-arabinofuranosyl)-[8-³H]adenine and 9-[(2-hydroxyethoxy)methyl]([8-³H]guanine ([8-³H]acyclovir). Synthesis of tritium-labelled arabinofuranosylcytosine, arabinofuranosyluracil, arabinofuranosyladenine, fluoraur and acyclovir was achieved. Reduction dehalogenation and desulfurization and isotope exchange reactions were used for introduction of tritium. Both methods provided good yields of highly active preparations of [8-³H]-acyclovir. Structural changes of the carbohydrate residue did not affect the procedures used. References 18: 6 Russian; 12 Western.

02791

Chemical and Immunochemical Study of *Vibrio alginolyticus* Lipopolysaccharides

18400279a Tashkent KHIMIYA PRIRODNYKH SOYEDINENIY in Russian No 5, Sep-Oct 87 (manuscript received 21 Jan 87, revised manuscript received 25 May 87) pp 652-657

[Article by Ye. L. Nazarenko, R. P. Gorshkova, T. I. Burtseva and Yu. S. Ovodov, Pacific Ocean Institute of Bioorganic Chemistry, Order of the Labor Red Banner, Far Eastern Scientific Center, USSR Academy of Sciences, Vladivostok]

[Abstract] *Vibrio alginolyticus* belongs to a group of so-called halophilic vibrios. This microorganism belongs

to a conventionally pathogenic species, in contrast to the related species *Vibrio parahaemolyticus*, which causes serious food poisoning. This article describes a study of lipopolysaccharides of 3 strains of *V. alginolyticus* (1385-80, 945-80 and 2076-80) obtained from Japan. The study showed differences in chemical composition and serological specificity of these lipopolysaccharides. Lipopolysaccharides of strains 945-80 and 2076-80 possess dose-related serological specificity while 1385-80 differs from them serologically. It was assumed that there are several serogroups in this species and these serogroups differ in the monosaccharide composition of their O-antigenic lipopolysaccharides. Some Japanese scientists came to the same conclusion. References 15: 1 Russian; 14 Western.

02791

Structural Study of Lipopolysaccharide of *Yersinia enterocolitica* Serovar 0:8

18400279b Tashkent KHIMIYA PRIRODNYKH
SOYEDINENIY in Russian No 5, Sep-Oct 87
(manuscript received 10 Feb 87) pp 657-664

[Article by S. V. Tomshich, R. P. Gorshkova and Yu. S. Ovodov, Pacific Ocean Institute of Bioorganic Chemistry, Order of the Labor Red Banner, Far Eastern Scientific Center, USSR Academy of Sciences, Vladivostok]

[Abstract] *Yersinia enterocolitica* microorganisms are being isolated more and more from patients with symptoms of intestinal diseases known as yersiniosis and are also being isolated from animals, fowl and the environment. A structural study of lipopolysaccharides isolated from the microbial mass of *Yersinia enterocolitica* serovar 0:8 (strain 16) by phenol-aqueous extraction revealed residues of L-fucose, 6-deoxy-D-gulose, D-mannose, D-galactose, D-glucose, D-glycero-D-manno- and L-glycero-D-mannoheptose, N-acetyl-D-glucoseamine, N-acetyl-D-galactoseamine and 2-keto-3-desoxyoctonic acid. Soft acid hydrolysis of the lipopolysaccharide with subsequent gel-filtration on different brands of sephadexes produced a polysaccharide and revealed the qualitative and quantitative monosaccharide compositions. A structure of the repeating link of the O-specific polysaccharide of lipopolysaccharide of *Yersinia enterocolitica* serovar 0:8 was proposed on the basis of data of monosaccharide analysis, methylation, decomposition by the Smith method and partial hydrolysis. References 17: 5 Russian; 12 Western.

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Effect of Hydrophobic Interaction in Reaction of O-Propyl-S-(beta-ethylmercaptoalkyl) methylthiophosphonates and Their Methylsulfomethylates with Cholinesterases of Warm-blooded Animals

18400279c Tashkent KHIMIYA PRIRODNYKH
SOYEDINENIY in Russian No 5, Sep-Oct 87
(manuscript received 28 Jan 87) pp 696-700

[Article by M. Gulyamov, Z. Tilyabayev, D. N. Dalimov, and A. A. Abduvakhobov, Institute of Bioorganic Chemistry, UzSSR Academy of Sciences, Tashkent] [txt] [Abstract] A study of the interaction of acetylcholinesterase of human erythrocytes and butyrylcholinesterase of horse serum with O-propyl-S-(beta-ethylmercaptoalkyl)methylthiophospho-

nates containing alkyl radicals of different length showed that a change of structure of the organic phosphorus compounds definitely affected the hydrophobic interaction between the enzyme and the inhibitor. This interaction is associated with the presence of hydrophobic areas in the region of anionic sites of the cholinesterases, the structure of which differs for acetylcholinesterase and butyrylcholinesterase. References 9: 6 Russian; 3 Western.

02791

Covalent Immobilization of Heparin on Collagen Film

18400279d Tashkent KHIMIYA PRIRODNYKH
SOYEDINENIY in Russian No 5, Sep-Oct 87
(manuscript received 5 Feb 87) pp 700-704

[Article by T. I. Velichko, A. N. Shtopenko, N. V. Fedoseyeva and G. S. Katrukha, Moscow Order of Lenin, Order of the Red Banner, and Order of the October Revolution State University imeni M. V. Lomonosov]

[Abstract] Heparin, a natural sulfated acid polysaccharide, is a broad spectrum anticoagulant and a regulator of many biochemical and physiological processes occurring in the body. Heparin attached to a polymer maintains its anticoagulation properties. The authors studied four methods of covalent immobilization of heparin on collagen film. In method 1, the collagen film was modified by epichlorohydrin with subsequent introduction of an amino group. Heparin was then immobilized with the use of 1-cyclohexyl-3-(2-morpholinoethyl)-carbodiimide [CMEC], after succination and by reductive amination in the presence of sodium borocyanohydride in three variants of method 1. In method 2, carboxyl groups of collagen were activated with the use of CMEC after a preliminary incubation of the film at 37°C in a 0.1 N solution of NaOH. Preliminary modification of collagen by epichlorohydrin and ammonia and preliminary activation by alkali significantly increased the amount of immobilized heparin. The maximum amount was immobilized by method 2. Figures 1; references 7: 1 Russian; 6 Western.

02791

Synthesis of Glycoside Analogs of N-Acetylmuramoyl-L-alanyl-D-isoglutamine

18400279e Tashkent KHIMIYA PRIRODNYKH
SOYEDINENIY in Russian No 5, Sep-Oct 87
(manuscript received 17 Mar 87) pp 714-718

[Article by A. Ye. Zemlyakov and V. Ya. Chirva, Simferopol State University imeni M. V. Frunze]

[Abstract] N-Acetylmuramoyl-L-alanyl-D-isoglutamine (muramoyl dipeptide), being the minimal fragment of the peptidoglycan of cell membranes, is of great interest to researchers. This article described synthesis of glycoside

analogs of N-acetylmuramoyl-L-alanyl-D-isoglutamine. β -Heptyldecylglycosides and β -hexadecylglycosides were produced by the oxazole method with subsequent deacetylation. Glucosides were converted into the appropriate derivatives of N-acetylmuramic acid via the stage of benzylation. O-(Heptyl 2-acetamido-2-deoxy- β -D-glucopyranosid-3-yl)-D-lactoyl-L-alanyl-D-isoglutamine and O-(hexadecyl 2-acetamido-2-deoxy- β -D-glucopyranosid-3-yl)-D-lactoyl-L-alanyl-D-isoglutamine had an effect on complementary rosette formation and activated leukocyte migration analogously to muramoyl dipeptide. References 8: 2 Russian; 6 Western.

02791

Potentiometric Differentiated Titration of Components of Nucleic Acids and Their Derivatives VII. Acidimetric Determination of Some N-Acyl-2'-deoxyribonucleosides and Their 5'-Tritylated Derivatives

18400279f Tashkent KHIMIYA PRIRODNYKH SOYEDINENIY in Russian No 5, Sep-Oct 87 (manuscript received 26 Jan 87) pp 718-723

[Article by A. Ya. Veveris, B. A. Spintse, I. A. Luse and K. M. Ziyemelis, All-Union Scientific Research Institute of Applied Biochemistry, Scientific Production Association "Biolar"]

[Abstract] Conditions of potentiometric titration of N-acyl-2'-deoxyribonucleosides, derivatives of tritylcarbinol and their 2-component mixtures by a nitromethane solution of perchloric acid were described and discussed. The effect of water, acetone, chloroform and acetic acid on conditions of acidimetric analysis of n-trimethyltritylcarbinol, n-monomethoxytritylcarbinol and di-n-methoxytritylcarbinol in a nitromethane medium was shown. The possibility of using potentiometric differentiated titration in analysis of 5'-n-trimethyltrityl, 5'-n-monomethoxytrityl and 5'-di-n-methoxytrityl derivatives of N-acyl-2'-deoxyribonucleosides was shown. A method for determining 5'-di-n-methoxy derivatives of N⁶-benzoyl-2'-deoxyribocytidine and N⁶-benzoyl-2'-deoxyriboadenosine was proposed. The method involves use of two parallel titrations. Figures 1; references 11: 9 Russian; 2 Western.

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Immobilization of Modified Heparin on Collagen Film

18400279g Tashkent KHIMIYA PRIRODNYKH SOYEDINENIY in Russian No 5, Sep-Oct 87 (manuscript received 12 May 87) pp 771-772

[Article by T. I. Velichko, N. N. Anikeyeva, N. V. Fedoseyeva and G. S. Katrukha, Moscow Order of Lenin, Order of the Labor Red Banner and Order of the October Revolution State University imeni M. V. Lomonosov]

[Abstract] Heparin was immobilized by water-soluble carbodiimide after alkaline activation of the collagen (method 1), by use of the azide method of forming a

peptide bond after sequential conversion of free carboxyl groups in the collagen into azide groups (method 2) and by treatment, first, with a trifunctional reagent (cyanuric chloride) and then, after substitution of the second chlorine by an aniline residue, condensation with modified or free heparin (method 3). Modification of heparin by introducing additional amino groups into its molecule greatly increased the degree of immobilization of heparin on collagen. Method 1 was the most effective. Figures 1; references 4: 1 Russian; 3 Western.

02791

Mechanism and Regulation of Calcium Entry Into Erythrocytes

18400273b Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298 No 3, Jan 88 (manuscript received 3 Jun 87) pp 753-756

[Article by S. N. Orlov and N. I. Pokudin, Central Scientific Research Laboratory, Moscow]

[Abstract] A continuation of a study of the mechanism of entry of calcium into erythrocytes employed human and Kioto-Wistar male rat erythrocytes. The highly selective calcium chelator Quin 2 was used to increase Ca^{2+} -buffer capacity. Intracellular concentration of protons was varied within a range of pH 6.6-7.6, and change of volume of the cells was monitored by light diffusion of the suspension. Increase of osmolarity of the incubation medium by addition of 0.5 M saccharose produced a 70-80 percent increase of light diffusion of the erythrocyte suspensions. Compression of the cells produced a 2-3-fold increase of rate of intake of ^{45}Ca , blocked by amilorid and quinidine, while other inhibitors of univalent ions did not affect the rate of ^{45}Ca intake, suggesting that the increase of rate of Ca intake upon compression of erythrocytes is mediated via activation of Na^+/H^+ metabolism and increase of concentration of intracellular sodium and rate of $\text{Ca}_0^{2+}/\text{Na}_i^+$ -antitransport. Data presented refuted these findings. It is concluded that the membrane erythrocyte contains a Ca carrier which is activated in the same way as carriers of monovalent cations during compression of the cells. In both cases, the metabolism-dependent regulation of the ion transport is removed by amilorid and quinidine. Figure 1; references 9: 5 Russian; 4 Western.

02791

Mechanisms of Complex Formation between Chlorin e_6 and Human Serum Albumin

18400275 Minsk DOKLADY AKADEMII NAUK BSSR in Russian Vol 32 No 2, Feb 88 (manuscript received 27 Feb 87) pp 175-178

[Article by G. A. Kochubeyev, A. A. Frolov, E. I. Zenkevich and G. P. Gurinovich, corresponding member, BSSR Academy of Sciences, Institute of Physics, BSSR Academy of Sciences]

[Abstract] Recent studies have shown the promise of use of porphyrins as sensitizers in phototherapy of malignant tumors. Spectral-luminescent study of the interaction of pigments with basic protein chromophores are very important in this respect, since this makes it possible to analyze specific features of incorporation of molecules of sensitizers into protein matrices. This article describes a detailed study of mechanisms of interaction of the exogenous sensitizer chlorin e_6 with human serum albumin, the basic transport protein of the blood. Analysis of electronic absorption spectra and fluorescence spectra of human serum albumin and chlorin e_6 showed that the role of energy donors in this system is played by tryptophan residues. Radiostructural analysis showed that the human serum albumin molecule consists of 3 domains, a central domain with diameter of 53 angstroms and 2 other domains, located symmetrically with respect to the central domain, both having a diameter equal to 38 angstroms. The single tryptophan residue of human serum albumin occupies position 214 in the amino acid sequence of the protein. The chlorin e_6 molecule rigidly bound to human serum albumin was located in the central domain of the protein globule. Figures 2; references 12: 7 Russian; 5 Western.

02791

Role of Low Molecular Fraction Isolated From Hibernating Gopher Intestines in Regulating Water and Electrolyte Transport in Renal Ducts

18400210b Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298 No 1, Jan 88 (manuscript received 11 Jun 87) pp 228-231

[Article by O. A. Goncharevskaya, Yu. G. Monin, L. I. Kramarova, S. G. Kolayeva, G. R. Ivanitskiy, corresponding member, USSR Academy of Sciences, Institute of Evolutionary Physiology and Biochemistry imeni I. M. Sechenov, USSR Academy of Sciences, Leningrad; Institute of Biological Physics, USSR Academy of Sciences, Pushchino, Moscow Oblast]

[Abstract] Low molecular weight fractions of biologically active materials were previously isolated from brain, mucous membrane of intestines and other tissues of hibernating animals. All of them slow metabolism and cause a hypothermal effect in mammals, inhibit synthesis of DNA in cell cultures, and inhibit developmental processes in sea urchin eggs. Data on their effects on kidneys and other peripheral organs are practically nonexistent. The goal of the present work was to investigate the specific effect of a low MW fraction isolated from the small intestine of a hibernating gopher on regulation of water and electrolyte transport through the epithelium of renal ducts. An acetic acid extract of the intestine was fractionated through microfilters PM-10 and UM-2, and the fraction with molecular weight from 1 to 10,000 daltons was used in the study. It was shown that this fraction decreased the transport of water and Ca^{2+} and Mg^{2+} ions in the distal kidney duct; naloxone reversed this effect. Figure 1; references 15: 6 Russian, 9 Western (1 by Russian authors).

7813/9604

**Ensuring Radiation Safety of Personnel
Performing Radioisotopic Diagnostic Studies**

18400272 Moscow GIGIYENA TRUDA I

PROFESSIONALNYYE ZABOLEVANIYA in Russian

No 12, Dec 87 (manuscript received 27 Nov 87)

pp 10-14

[Article by I. P. Korenkov, S. A. Bubliy, K. V. Voronin, N. N. Gladkikh, A. V. Sedov, S. I. Slutskina and I. M. Mazhorova, Central Institute for Advanced Training of Physicians, Moscow]

[Abstract] A study of the radiation protection given to workers engaged in radiodiagnostic studies and in scientific research in Moscow showed the organization of technological procedures being used are optimal for the

procedures being conducted and have virtually no effect on internal or external irradiation of the workers. Radiation conditions in radiodiagnostic laboratories have stabilized over the last 5 years. The level of external irradiation during use of generators of short-lived isotopes did not exceed 1/5-1/10 of the maximum permissible dose. The most dangerous procedure during work with different radionuclides during use of the generators was production of eluate and preparation of colloidal solutions. Procedures of selection and introduction of the preparation increased the radiation dose most during work with ^{131}I and ^{75}Se . Problems involved in standardizing the work of radiodiagnosis laboratory personnel were discussed briefly. References 4 (Russian).

02791

Morphological Changes in Tissues Removed From Throat and Trachea With Aid of CO₂-Laser

18400288a Kiev ZHURNAL USHNYKH, NOSOVYKH
I GORLOVYKH BOLEZNEY in Russian
No 1, Jan-Feb 88 (manuscript received 27 Jan 87)
pp 12-14

[Article by A. M. Dunayevskaya and E. A. Murzina, Children's Municipal Clinical Hospital No 2 imeni I. V. Rusakov (Chief Physician, Honored Physician RSFSR M. I. Malyavina; director, Doctor of Medical Sciences D. G. Chireshkin), Moscow]

[Abstract] A study of features of necrosis developing under the effect of laser radiation and of morphological changes in tissues in the immediate vicinity of the zone of injury included examination of papillomas of the throat and trachea (65 patients), cysts of the throat (5 patients) and scar tissue (10 patients), removed by use of a COHERENT CO₂-laser. Three zones of injury developed after use of the laser, with typical changes regardless of the tissues subjected to laser irradiation: a zone of

charring consisting of a narrow strip of charred, amorphous tissue, a zone of coagulation necrosis and a zone of edema. Vessels in the zone of edema were paretically dilated and their walls near the zone of coagulation were in a state of focal, fibrinoid impregnation and fibrinoid necrosis, but vessels in the deeper layers were unaffected. Analogous changes occurred with blood elements in the lumen of the vessels. Near the zone of necrosis, fibrinoid thrombi were found; accumulation of erythrocytes in the amorphous substance were seen farther away from this zone and, finally, the blood was unchanged with ordinary formed elements. The zone of edema contained many lymphatic fissures of different size. The hemostatic effect of the laser treatment was due to formation of thrombi in the small vessels and obliteration of capillaries. The effects of laser irradiation were limited to the surface layers of tissues and did not cause deep burn injury. Figures 2; references 7: 4 Russian; 3 Western.

02791

Experimental Study of Pharmacokinetics of Bemithyl in Rats

18400181b Moscow *FARMAKOLOGIYA I TOKSIKOLOGIYA* in Russian Vol 50 No 5, Sep-Oct 87 (manuscript received 25 Jun 85) pp 54-56

[Article by S. S. Boyko, Yu. G. Bobkov, V. P. Zherdev and A. A. Dvoryaninov, Institute of Pharmacology, USSR Academy of Medical Sciences, Moscow]

[Abstract] Bemithyl (2-ethylmercaptobenzimidazole) is one of a group of drugs conventionally called actoprotectors, which can increase resistance of the body to hypoxia and preserve the capacity to work under complex conditions. An important aspect of the action of bemithyl is its effect on energy metabolism, resulting in reduced glycogen and creatine phosphate expenditure and decreased lactic acid build-up during physical exertion. Significant aspects of its pharmacological effect may include its pharmacokinetic features, including its long stay in the body, tropicity for specific organs and systems, capacity to accumulate and intensity of its metabolic transformation. These factors prompted this study of bemithyl pharmacokinetics in an experiment on rats after intravenous and intragastric injection of it. Quantitative determination of bemithyl was performed by using a gas-liquid chromatographic method. Bemithyl was injected into male rats (200-250 mg) in an aqueous solution in a 50 mg/kg intragastric dose and in a 10 mg/kg intravenous dose. A 2-compartment model was used to calculate basic pharmacokinetic constants. The drug was absorbed into the blood within 15 minutes after internal administration and reached a maximum within 1 hour. The drug was excreted in the urine in a 2-phase process with the period of half-elimination of the first phase at 1.11 hours and, of the second phase, 1.86 hours. Kinetics of excretion after intravenous injection also was biexponential. Intense distribution of the drug in the internal organs and tissues suggested accumulation of bemithyl in the body, which increases its biological effect during prolonged use. Figures 2; references 4 (Russian).

02791

Algorithm for Calculation of Donor-Acceptor Factors for Molecules of Biologically Active Compounds

18400182c Moscow *KHIMIKO-FARMATSEVTICHESKIY ZHURNAL* in Russian Vol 21 No 9, Sep 87 (manuscript received 20 May 86) pp 1098-1102

[Article by A. M. Sapegin, O. A. Rayevskiy, V. V. Chistyakov and I. V. Martynov, Institute of Physiologically Active Substances, USSR Academy of Sciences, Chernogolovka, Moscow Oblast]

[Abstract] A physicochemical approach to the search and construction of biologically active compounds, based on itemized description of intermolecular substrate-acceptor interactions was described and discussed. The

algorithm of calculation of donor-acceptor factors was described. Operation of the algorithm was demonstrated using a specific example of assessment of the complexing capacity of 6 oxygen atoms, centers of molecular potential activity. Use of the algorithm makes it possible to calculate the effect of individual features of the molecule on the complexing capacity of its active centers and to provide a freedom of choice of active structural fragments during construction of new compounds with useful properties. References 25: 21 Russian; 4 Western.

02791

Production of Ubiquinone-9 Inclusion Compound with Beta-Cyclodextrin

18400182d Moscow *KHIMIKO-FARMATSEVTICHESKIY ZHURNAL* in Russian Vol 21 No 9, Sep 87 (manuscript received 15 May 86) pp 1111-1114

[Article by N. P. Sugrobova, Ye. A. Obolnikova, G. I. Samokhvalov and B. I. Kurganov, All-Union Scientific Research Vitamin Institute, Scientific Production Association "Vitamins", Moscow]

[Abstract] The unique capacity of cyclodextrin to form inclusion compounds with different substances is caused by the relatively rigid structure of their molecules and by the presence of an intramolecular hydrophobic cavity. The literature contains some reviews of the use of cyclodextrins and their inclusion compounds in different areas of industry. This paper described the production and study of some properties of an inclusion compound of beta-cyclodextrin and ubiquinone-9 which attracts interest as a cardiotrophic agent. A medicinal form consisting of soft gelatinous capsules with ubiquinone-9 in vegetable oil has been proposed. Beta-cyclodextrin isolated from *Candida guilliermondii* was used in the study. The inclusion compound was produced by dissolving ubiquinone-9 in no more than 1 ml of hexane and adding an equal volume of ethanol. The mixture obtained, with a ubiquinone-9 concentration of 50-60 mg/ml, was introduced into an aqueous solution of beta-cyclodextrin with a concentration of 10-20 mg/ml and the mixture was agitated for 1-3 days (220 revolutions per minute) at 27-28 °C. The precipitate formed was collected by centrifugation, washed in cold ethanol to remove co-precipitated ubiquinone-9 and in water, while heating, to remove excess beta-cyclodextrin and dried by sublimation. The product is a fine, bright yellow, crystalline powder, practically insoluble in water, hexane and alcohol but soluble in dimethylformamide and dimethylsulfoxide. The inclusion compound contains ubiquinone-9 and beta-cyclodextrin in a molar ratio of 1:3. Incorporation of ubiquinone-9 and beta-cyclodextrin increased the thermal stability of the compound. Figures 2; references 12: 4 Russian, 8 Western.

02791

Effects of Opioid Peptides on Rats With Second Heart Transplanted into Abdominal Cavity

18400298a Leningrad FIZIOLOGICHESKIY ZHURNAL SSSR IMENI I. M. SECHENOVA in Russian Vol 74 No 2, Feb 88 (manuscript received 1 Sep 87) pp 269-275

[Article by Ye. R. Martynova, V. Yu. Khalatov, O. S. Medvedev and R. S. Akchurin, Laboratory of Experimental Pharmacology (head, O. S. Medvedev) and Department of Cardiovascular Surgery (head, R. S. Akchurin), A.-Union Cardiological Scientific Center, USSR Academy of Medical Sciences, Moscow]

[Abstract] The effects of synthetic opioid peptides (analogs of enkephalins) on a normally innervated heart and a surgically denervated heart, functioning in the same rat, were compared using synthetic analogs of enkephalins, [D-Ala², D-Leu⁵]-enkephalin (DADL) and [D-Ala², MePhe⁴, Gly⁵-ol]-enkephalin (DAGO), and isoproterenol and propranolol. Experiments were conducted with 300 \pm 50 g male Wistar rats. Administration of DAGO and DADL (1 μ mole/kg intravenously or in a bolus) to spontaneously breathing rats reduced the mean arterial pressure 36 \pm 4 percent (DAGO) and 34 \pm 6 percent (DADL) and produced brief apnea. The natural heart displayed reduction of the end-systolic pressure, bradycardia and reduction of contractility. The contractility index of the denervated heart increased against a background of reduction of end-systolic pressure and unchanged heart rate. The peptides did not produce a chronotropic effect but produced a slight positive inotropic effect on the denervated heart. Both the bradycardia and decrease of contractility in the natural heart were of neurogenic nature. The sensitivity of the myocardium to the inotropic effect of the opioid peptides increased with time. The index of the contractility index of the heart transplant from injection of the peptides remained after a block of β -adrenoreceptors by propranolol. Injection of isoproterenol also reduced the mean arterial pressure without significant changes in respiration. The sensitivity of the denervated heart to the inotropic effect of isoproterenol was higher than that in the normal heart. Figures 2; references 20; 2 Russian; 18 Western.

02791

Comparative Analysis of Morphological Changes in Rat Visual and Sensomotor Cortex Neurons Caused by Tuftsin

18400298b Leningrad TSITOLOGIYA in Russian Vol 30 No 1, Jan 88 (manuscript received 19 Nov 86) pp 76-80

[Article by T. L. Chebotareva, Scientific Research Institute of the Brain, All-Union Scientific Mental Health Center, USSR Academy of Medical Sciences, Moscow]

[Abstract] The effect of a single intraperitoneal injection of tuftsin on the functional state of neurons was assessed by the change of level and concentration of proteins in

their cytoplasm and nuclei, the areas of neuron cytoplasm and nuclei and the nucleus-cytoplasm area ratios. Pubescent, male mongrel rats weighing 180-200 g were injected with 300 μ g of tuftsin per kg of body weight. Control animals received physiological solution. Reactions of the same type of neurons of the visual cortex and the sensomotor cortex differed significantly 15 minutes (the period of high emotional and motor activity) after injection of tuftsin. It is assumed that tuftsin changes the informational significance of visual impulsation, accompanied by significant morphochemical changes of neurons in the pathway of entry of information from the environment into the visual cortex and that the effect of tuftsin is due to an increase of functional activity of efferent neurons of layer V of the sensomotor cortex, where the response motor reaction occurs. References 15; 11 Russian; 4 Western.

02791

Synthetic Peptide from Helix aspersa Increases Arterial Blood Pressure in Rats

18400298c Leningrad ZHURNAL EVOLYUTSIONNOY BIOKHMII I FIZIOLOGII in Russian Vol 24 No 1, Jan-Feb 88 (manuscript received 20 May 87) pp 106-108

[Article by V. I. Deygin, S. V. Pomogaybo, S. V. Zhukovskiy and V. A. Vinogradov, All-Union Cardiological Scientific Center, USSR Academy of Medical Sciences, Moscow]

[Abstract] Considering the important role of phylogenetically ancient peptides in regulating functions of the mammalian cardiovascular system, associates of the All-Union Cardiological Scientific Center, USSR Academy of Medical Sciences, synthesized a cardioactive peptide from the snail *Helix aspersa* and assessed its biological activity in experiments on 250-300 g male Wistar rats, anesthetized by inactin injected intraperitoneally in a 1.2 mg/kg dose. Arterial pressure and heart rate were recorded on a Watanabe Linearrecorder Mark 7. Injection of the peptide (3-300 μ g/minute) dissolved in 100 microliters of physiological solution caused a brief dose-dependent increase of arterial blood pressure and heart rate. ED₅₀ was 99.4 μ g/kg. The ganglion-blocker benzohexonium (10 mg/kg) significantly weakened the effect of the peptide on blood pressure and tachycardia, and prazosine (0.5 mg/kg of weight) completely eliminated blood pressure increase caused by the peptide but did not affect the tachycardia. Propranolol (1 mg/kg) eliminated the effect of the peptide on the heart rate. The findings justified the assumption that the effect of the cardioactive peptide on blood pressure and heart rate was associated with increased tonus of the sympathetic nervous system. Figure 1; references 5 (Western).

02791

Opioid Dermorphin Suppresses Chronotropic Cholinergic Effects on Frog Heart

18400210a Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298 No 1, Jan 88 (manuscript received 28 May 87) pp 254-256

[Article by N. A. Sokolova, V. I. Deygin, Ye. P. Yarova and I. P. Ashmarin, active member of USSR Academy of Medical Sciences, Moscow State University imeni M. V. Lomonosov]

[Abstract] The goal of this work was to study the effect of an endogenous opioid of amphibia—dermorphin—on chronotropic cholinergic effects on isolated frog's heart with a stimulated parasympathetic system or exposed to exogenous acetylcholine. Dermorphin (H-Tyr-D-Ala-Phe-Gly-Tyr-Pro-Ser-NH₂) was first isolated from the skin of a South American frog; it shows long-lasting analgesic activity. It was shown that dermorphin caused concentration-related blockage of the parasympathetic chronotropic response and other effects due to exogenic acetylcholine. Naloxone did not block the effect of dermorphin. Comparison of dermorphin with methacine, the most effective blocker of peripheral M-cholinereceptors, showed that the ID₅₀ (dose causing 50% inhibition) of dermorphin was about 1,000 fold lower than that of methacine. Evidently, dermorphin acts directly on the pace-maker cell membrane. Figure 1; references 14 (Western).

7813/9604

Argiopine as Antagonist of Glutamate Action on Frog Spinal Motor Neurons

18400211b Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298 No 2, Jan 88 (manuscript received 2 Jun 87) pp 505-508

[Article by S. M. Antonov, O. V. Shuplyakov, L. G. Magazanik, N. P. Veselkin, T. M. Volkova and Ye. V. Grishin, Institute of Evolutionary Physiology and Biochemistry imeni I. M. Sechenov, USSR Academy of Sciences, Leningrad; Institute of Bioorganic Chemistry imeni M. M. Shemyakin, USSR Academy of Sciences, Moscow]

[Abstract] Recently, argiopine was isolated from the venom of the spider *Argiope lobata* and was demonstrated to have interesting activity. The action of argiopine on glutamatergic synapses in the CNS of vertebrate animals has been studied. Experiments were performed

on the lumbar segment of isolated spinal cord of the frog *Rana ridibunda* in order to examine responses from motor neurons, specifically, the effect of argiopine on the amplitude of depolarization responses of motor neurons evoked by short term application of glutamate and aspartate. It was shown that argiopine is a very effective tool for studying glutamatergic transmissions in arthropoda and vertebrates. The high selectivity of argiopine with respect to given types of receptors controlled by glutamate makes it a fine agent for analysis of the chemical nature of stimulating synapses in the CNS. Figures 3; references 12: 4 Russian, 8 Western (1 by Russian authors).

7813/9604

Molecular Mechanism of Ganglion-Blocking Action of Monoammonium Compounds

18400276 Kiev DOKLADY AKADEMII NAUK UKRAINSKOY SSR, SERIYA B GEOLOGICHESKIYE, KHIMICHESKIYE I BIOLOGICHESKIYE NAUKI in Russian No 12, Dec 87 (manuscript received 5 Oct 87) pp 63-65

[Article by V. Ye. Gmito, V. A. Derkach, D. E. Kurennyy, A. A. Seiyanko and V. I. Skok, academician, UkSSR Academy of Sciences, Institute of Physiology, UkSSR Academy of Sciences, Kiev]

[Abstract] The effect of monoammonium compounds IEM-1194 and IEM-1559 on acetylcholine-induced currents was studied using voltage-clamped rat superior cervical ganglion neurons. The monoammonium cations ($3 \cdot 10 \times 10^{-6}$ mole/liter) caused irreversible suppression of the acetylcholine current. The irreversible nature of the action of compound IEM-1194 was associated with the presence of a decyl radical. The compounds formed a complex with the open choline-receptor channel which is stronger than that of any previously studied compounds. Blocking of the open choline-receptor channel was caused by the ammonium part of the molecule. The process of blocking and unblocking open channels of choline receptors by the compounds may be repeatedly reproduced by paired application of acetylcholine and after removal of the blocking compounds from the perfusion solution. References 3: 2 Russian; 1 Western.

02791

1985 USSR Mortality Figures by Age Group
18400347a Moscow SOVETSKOYE
ZDRAVOOKHRANENIYE in Russian
No 1, Jan 88 pp 66-74

[Article consists of one table; key follows table]

[Text] Statistical Materials

(7)	Исходные группы (1)	Р	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	(2) 75 и старше	(3) Всего	Среднегодовая продолжительность жизни	
													(4) середний статус	(5) середний статус
														(6) середний статус
Все причины (8)	ОП { (9)	25 76,5	270,1	53,9	119,5	221,4	417,3	866,7	1 703,0	3 928,6	10 553,6	10 653,2	1 220,5	856,8
	М	2909,7	285,3	66,5	175,1	339,5	631,3	1 300,4	2 570,6	5 786,2	12 822,5	10 973,3	1 679,7	1 187,5
	Ж	2267,4	254,3	40,9	62,5	102,3	213,4	482,5	1 127,8	3 115,4	9 900,6	10 333,2	947,4	646,2
01-07 Инфекционные и паразитарные болезни (10)	ОП	413,3	44,2	2,2	4,1	9,0	16,6	22,9	26,1	25,6	24,5	23,3	22,9	24,9
	М	448,8	45,6	2,4	4,2	12,6	28,1	40,5	51,8	55,1	49,9	32,1	34,2	34,0
	Ж	376,0	42,6	2,0	4,0	5,4	5,6	7,3	9,1	12,7	16,1	15,5	14,7	18,1
011 Брюшной тиф (11)	ОП	0,0	0,0	0,0	0,1	0,1	0,1	0,0	0,0	0,0	0,0	0,1	0,1	0,1
	М	—	0,0	0,0	0,1	0,1	0,1	0,0	0,0	0,0	—	0,1	0,1	0,1
	Ж	0,0	0,0	0,0	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
010, 019, 012-016 Другие кишечные инфекционные болезни (12)	ОП	266,6	25,3	0,4	0,2	0,1	0,2	0,4	0,6	1,0	1,6	7,3	6,2	9,1
	М	286,0	25,4	0,4	0,2	0,2	0,3	0,6	0,8	1,4	2,8	8,4	6,7	9,7
	Ж	246,4	25,2	0,4	0,2	0,1	0,2	0,3	0,4	0,9	1,2	6,4	5,9	8,7
034 Кошачья (13)	ОП	0,9	0,0	—	—	—	—	—	—	—	—	0,0	0,0	0,0
	М	0,7	0,0	—	—	—	—	—	—	—	—	0,0	0,0	0,0
	Ж	1,1	0,0	—	—	—	—	—	—	—	—	0,0	0,0	0,0
036 Менингококковая инфекция (14)	ОП	24,7	4,1	0,2	0,2	0,2	0,2	0,3	0,4	0,3	0,4	1,0	0,9	1,2
	М	27,5	4,3	0,2	0,2	0,2	0,2	0,4	0,6	0,3	0,6	1,2	1,0	1,3
	Ж	21,7	3,9	0,3	0,1	0,1	0,1	0,2	0,2	0,2	0,4	0,8	0,8	1,1
037 Скарлатина (15)	ОП	—	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,2	0,2	0,1	0,1	0,1
	М	—	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,3	0,0	0,1	0,1
	Ж	—	—	—	—	—	0,0	0,1	0,1	0,3	0,2	0,1	0,1	0,1
038 Септицемия (16)	ОП	84,4	3,4	0,3	0,4	0,5	0,7	0,9	1,2	1,3	1,2	2,5	2,2	2,9
	М	93,3	4,0	0,4	0,4	0,5	0,8	1,1	1,5	1,9	1,5	3,0	2,6	3,3
	Ж	75,1	2,9	0,2	0,3	0,5	0,6	0,7	0,9	1,0	1,1	2,1	1,9	2,5
030-033, 035, 039 Другие бактериальные болезни (17)	ОП	2,9	0,8	0,2	1,6	6,7	14,1	19,8	22,0	20,9	19,0	9,5	10,8	8,4
	М	3,0	0,8	0,1	2,2	10,7	25,3	36,6	46,4	48,4	40,9	16,3	20,8	16,2
	Ж	2,2	0,6	0,3	1,3	2,6	3,6	4,9	6,1	9,0	11,6	3,6	3,6	2,8
042 Коклюш (18)	ОП	4,1	1,9	0,1	0,0	—	—	—	—	—	—	0,2	0,2	0,3
	М	4,2	1,8	0,1	0,0	—	—	—	—	—	—	0,2	0,2	0,3
	Ж	4,1	2,0	0,1	0,0	—	—	—	—	—	—	0,2	0,2	0,3

Прочие сведения	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего	Стандартизованный показатель	
													взрослый	всего
040, 041, Другие вирусные болезни (19) 043-049	ОП	28,0	8,4	0,9	1,5	1,3	0,8	0,8	1,2	1,2	1,4	2,2	2,0	2,5
	М	32,2	9,2	1,0	1,0	0,7	0,9	1,1	1,6	2,2	2,6	2,5	2,2	2,7
	Ж	23,6	7,7	0,7	2,0	1,8	0,7	0,6	0,9	0,8	1,0	2,0	1,9	2,3
052 Мalaria (28)	ОП	-	-	-	-	-	0,0	0,0	0,0	-	-	0,0	0,0	0,0
	М	-	-	-	-	-	0,0	0,0	0,0	-	-	0,0	0,0	0,0
	Ж	-	-	-	-	-	-	-	-	-	-	-	-	-
050, 051, Другие болезни, передаваемые насекомыми (21) 053, 054, мие членистоногими 0,59	ОП	0,0	-	-	-	0,0	-	0,0	0,0	-	0,0	0,0	0,0	0,0
	М	-	-	-	-	0,0	-	-	0,0	-	0,0	0,0	0,0	0,0
	Ж	0,0	-	-	-	-	-	-	-	-	-	0,0	0,0	0,0
07 Другие инфекционные и паразитарные болезни (22)	ОП	2,0	0,3	0,1	0,1	0,2	0,3	0,5	0,6	0,6	0,6	0,3	0,3	0,3
	М	2,0	0,2	0,1	0,1	0,2	0,4	0,5	0,9	0,9	1,3	0,4	0,4	0,4
	Ж	1,9	0,4	0,0	0,1	0,2	0,3	0,4	0,5	0,5	0,5	0,3	0,3	0,3
08-14 Злокачественные новообразования (23)	ОП	7,5	8,5	6,3	8,3	16,1	62,7	203,3	460,2	728,3	715,2	150,6	173,7	124,1
	М	8,2	9,3	7,4	9,2	17,3	67,8	270,5	690,8	1200,2	1181,1	173,2	262,6	185,3
	Ж	6,8	7,6	5,2	7,2	16,6	57,8	143,8	307,3	521,6	560,6	130,8	126,0	90,4
08 Злокачественные новообразования губы, полости рта и глотки (24)	ОП	0,1	0,1	0,1	0,2	0,3	1,9	6,1	10,5	11,8	13,5	3,3	3,8	2,7
	М	0,0	0,1	0,1	0,2	0,4	3,4	11,6	22,3	27,3	27,4	5,4	7,8	5,6
	Ж	0,2	0,0	0,0	0,1	0,2	0,5	1,2	2,6	5,0	6,9	1,4	1,3	0,9
090 Злокачественные новообразования пищевода (25)	ОП	0,0	-	0,0	0,0	0,1	1,2	7,2	17,2	26,5	34,3	5,5	6,4	4,4
	М	0,0	-	0,0	0,0	0,1	1,9	12,0	31,8	50,4	62,0	7,5	11,7	8,0
	Ж	-	-	0,0	0,0	0,1	0,5	3,0	7,4	16,1	25,2	3,7	3,8	2,3
091 Злокачественные новообразования желудка (26)	ОП	0,1	0,0	0,1	0,3	2,5	12,0	39,5	90,1	166,7	174,2	31,3	36,1	25,1
	М	0,1	0,0	0,1	0,3	2,5	15,7	59,6	142,2	269,8	280,2	37,0	56,9	39,5
	Ж	0,0	0,0	0,0	0,3	2,5	8,5	21,8	55,5	121,5	139,0	26,3	24,6	16,9
093 Злокачественные новообразования ободочной кишки (27)	ОП	0,0	0,1	0,0	0,1	0,6	1,8	6,2	16,2	36,1	45,7	6,4	7,4	5,0
	М	0,0	0,1	0,1	0,2	0,6	2,0	6,8	17,6	45,1	54,2	5,4	8,7	5,9
	Ж	0,0	0,0	0,0	0,1	0,6	1,7	5,6	15,2	32,2	42,9	7,3	6,7	4,6
094 Злокачественные новообразования прямой кишки, ректосигмоидного соединения и заднего прохода (28)	ОП	-	0,0	0,0	0,2	0,9	2,5	7,8	20,7	44,6	50,1	7,8	9,0	6,2
	М	-	0,0	0,0	0,2	0,7	2,3	7,9	24,2	59,1	72,6	7,0	11,3	7,7
	Ж	-	-	0,0	0,2	1,0	2,7	7,6	18,4	38,2	42,6	8,5	8,0	5,5

Примечание	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего	Стандартизованный показатель	
													серовой	мужской
100 (29)	Злокачественные новообразования гортани	0,0 0,1 —	— — —	0,0 0,0 —	0,0 0,0 0,0	0,1 0,2 0,0	1,5 2,9 0,1	6,0 12,3 0,4	11,9 28,3 1,1	11,7 33,9 1,9	7,7 25,9 1,6	3,1 6,1 0,4	3,6 8,8 0,4	2,6 6,3 0,3
101 (30)	Злокачественные новообразования трахеи, бронхов и легкого	0,1 0,1 0,0	0,1 0,1 0,0	0,1 0,1 0,0	0,3 0,3 0,2	1,1 1,6 0,6	8,7 15,1 2,5	47,2 90,5 8,8	116,2 254,3 24,7	146,5 377,0 45,6	97,6 263,5 42,6	30,4 83,7 9,8	35,3 81,0 9,3	25,2 57,4 6,5
113 (31)	Злокачественные новообразования молочной железы	— — —	0,0 0,0 0,0	0,0 0,0 0,0	0,1 0,0 0,1	1,4 0,0 2,8	7,5 0,1 14,6	16,6 0,5 30,9	27,0 1,1 44,2	30,9 2,2 43,5	33,2 2,9 43,3	8,7 0,3 16,2	10,2 0,5 16,6	7,4 0,3 12,2
120 (32)	Злокачественные новообразования шейки матки	— — —	0,0 0,0 0,0	0,0 0,0 0,0	0,0 0,1 0,1	0,7 1,5 0,3	2,3 4,6 1,0	4,9 9,3 3,3	12,2 20,3 9,8	22,3 32,1 17,8	18,7 24,9 16,7	4,1 7,8 3,1	4,8 7,7 3,7	3,4 5,6 2,6
122 (33)	Злокачественные новообразования матки другой и неуточненной части	— — —	— — —	0,0 0,0 0,0	0,1 0,1 0,1	0,3 0,6 0,6	1,0 1,9 0,1	3,3 6,2 0,9	9,8 16,3 4,4	17,8 25,6 15,0	16,7 22,2 23,7	3,1 5,9 2,3	— 5,7 2,6	2,6 4,1 1,7
124 (34)	Злокачественные новообразования предстательной железы	— — —	— — —	0,0 0,0 0,0	0,1 0,1 0,1	0,1 0,1 0,1	0,3 0,3 0,3	2,0 2,0 —	11,1 — —	49,4 — —	95,3 — —	4,9 — —	8,7 — —	5,5 — —
141 (35)	Телоиз (35)	3,2 3,6 2,8	3,3 3,6 3,0	2,7 3,0 2,3	2,1 2,4 1,8	1,9 2,0 1,8	2,7 2,7 2,6	5,1 5,7 4,5	10,1 13,1 8,1	15,9 25,0 11,9	12,3 22,8 8,8	4,6 5,1 4,2	5,0 6,6 4,2	4,3 5,4 3,6
140, 149 (36)	Другие злокачественные новообразования лимфатической и кроветворной ткани	0,8 0,9 0,7	1,0 1,3 0,7	0,9 1,4 0,5	1,3 1,7 1,0	1,9 2,2 1,5	2,3 2,8 1,7	4,8 6,6 3,2	9,1 12,7 6,7	11,8 17,7 9,2	9,8 17,7 7,2	3,5 4,2 2,9	3,9 5,5 2,9	3,1 4,4 2,3
15-17 (37)	Злокачественные новообразования других локализаций	3,2 3,4 3,1	3,9 4,1 3,9	2,4 2,6 2,4	3,6 3,8 3,2	6,2 6,9 5,6	17,2 18,6 15,9	47,7 55,0 41,3	108,8 132,1 86,8	170,7 243,3 138,8	177,7 256,6 151,4	36,5 36,6 36,4	41,9 55,1 35,1	30,4 39,3 25,6
15-17 (38)	Доброкачественные и не-точно обозначенные новообразования	1,6 1,5 1,6	0,7 0,7 0,7	0,6 0,6 0,5	0,6 0,6 0,5	1,0 1,1 0,9	2,1 2,1 2,2	3,9 3,9 4,0	5,2 6,6 4,3	5,0 7,4 3,9	4,5 8,6 3,1	2,1 2,2 2,0	2,3 2,8 2,1	1,9 2,2 1,7
181 (39)	Саларный диабет (39)	0,1 0,1 0,0	0,1 0,0 0,1	0,2 0,2 0,2	0,5 0,4 0,5	0,9 1,1 0,7	1,4 1,8 1,0	3,7 4,4 3,1	9,9 8,9 10,6	20,7 18,0 21,9	18,0 15,8 18,7	3,7 2,8 4,5	4,2 4,0 4,2	3,0 2,9 3,0

Примеры смерти	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего		Стандартизованный показатель
												серьез- ская	интер- ская	
180, 182, 183, 189, 19	Другие болезни эндокри- ной системы, нарушенная об- мен веществ и минералов	14,1	1,7	0,2	0,2	0,4	0,7	1,2	1,6	1,8	1,0	1,0	1,0	1,1
200	Анемия (41)	2,0	1,3	0,3	0,3	0,3	0,4	0,5	0,9	1,6	1,8	0,6	0,7	1,1
209	Другие болезни крови и кроветворных органов	2,4	1,4	0,3	0,4	0,2	0,3	0,5	0,9	2,0	2,1	0,6	0,7	0,6
21	Психические расстройства (43)	1,7	1,2	0,3	0,3	0,4	0,5	0,5	0,9	1,4	1,7	0,7	0,6	0,6
220	Менингит (44)	1,9	0,4	0,1	0,2	0,2	0,3	0,5	0,8	1,1	0,9	0,4	0,4	0,4
223	Рассеянный склероз (45)	2,0	0,5	0,2	0,2	0,2	0,3	0,5	0,8	1,4	1,5	0,4	0,5	0,5
225	Эпилепсия (46)	1,1	1,1	1,0	2,0	2,5	2,7	2,5	1,9	1,1	0,6	1,9	1,9	1,8
221, 222, 224, 229, 23, 24	Другие болезни нервной системы и органов чувств (47)	1,2	1,2	1,1	2,3	3,1	3,6	3,5	2,8	2,1	0,7	2,4	2,5	2,3
25-30	Болезни системы крово- обращения (48)	0,9	1,1	1,0	1,8	1,9	1,8	1,6	1,3	0,7	0,6	1,4	1,4	1,4
250	Ревматизм в активной фазе (49)	26,5	8,0	3,2	2,4	2,0	3,0	4,4	5,1	5,2	7,3	4,1	4,4	4,4
251	Хронические ревматические болезни сердца (50)	31,1	8,8	3,5	3,0	2,4	3,7	5,8	7,0	7,5	10,5	5,2	5,3	5,4
		21,7	6,9	2,7	1,7	1,7	2,3	3,3	3,9	4,1	6,3	3,5	3,5	3,5
		8,6	1,7	1,5	7,1	25,6	96,7	297,8	786,8	2529,4	8589,5	588,2	704,6	427,2
		8,9	1,6	1,4	8,5	37,4	151,6	445,1	1123,4	3401,7	9540,8	485,9	865,8	550,5
		8,2	1,8	1,6	5,8	13,7	44,3	167,4	563,5	2147,5	8273,7	678,3	607,4	358,0
		—	0,0	0,2	0,7	1,2	2,6	5,3	5,7	3,3	1,7	2,1	2,4	1,9
		—	0,0	0,2	0,8	1,2	2,7	4,9	4,8	3,2	1,8	1,8	2,2	1,8
		—	0,0	0,2	0,7	1,2	2,5	5,7	6,4	3,3	1,6	2,3	2,5	2,0
		0,0	0,0	0,2	1,3	3,0	7,1	16,3	19,9	13,5	7,7	6,5	7,5	5,8
		—	0,0	0,2	1,4	3,4	7,6	14,9	17,0	12,1	6,9	5,6	7,0	5,5
		0,0	0,0	0,2	1,2	2,7	6,5	17,5	21,9	14,2	8,0	7,4	7,8	6,0

Причины смерти	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Стандартизованный показатель	
												сердечный	инфаркт
26	Гипертоническая болезнь (51)	0,0	0,0	0,0	0,1	0,6	2,4	8,0	14,4	23,8	45,9	5,8	6,8
	М	—	0,0	0,0	0,1	0,8	3,1	9,7	17,5	27,0	49,3	5,2	8,1
	Ж	0,0	0,0	0,0	0,1	0,3	1,7	6,5	12,3	22,4	44,7	6,4	6,1
270	Острый инфаркт миокарда (52)	—	0,0	0,0	0,4	2,7	12,7	37,2	82,2	159,7	186,9	30,4	35,5
	М	—	0,0	0,0	0,5	4,5	23,1	67,2	142,5	254,6	289,3	38,8	59,5
	Ж	—	0,0	0,0	0,3	0,9	2,8	10,7	42,3	118,2	153,0	23,1	21,1
279	Другие формы ишемической болезни сердца (53)	0,1	0,0	0,0	0,9	7,8	39,3	122,6	347,8	1275,9	4917,5	307,4	371,2
	М	0,0	0,0	0,0	1,3	13,4	59,4	207,3	534,2	1759,0	5655,5	255,7	482,6
	Ж	0,1	0,0	0,0	0,6	2,2	10,7	47,5	224,1	1064,4	4672,5	352,9	314,0
28	Нарушения легочного кровообращения и другие болезни сердца (54)	7,4	1,4	0,8	2,2	4,8	10,5	17,3	24,3	49,1	169,2	16,2	19,0
	М	7,8	1,3	0,7	2,8	7,0	16,1	26,4	37,0	70,2	192,5	16,7	25,6
	Ж	7,0	1,5	0,8	1,5	2,7	5,0	9,2	15,8	39,9	161,5	15,7	14,7
29	Цереброваскулярные болезни (55)	0,6	0,1	0,2	1,2	4,6	19,8	83,9	269,5	901,0	2787,3	193,0	229,4
	М	0,6	0,1	0,2	1,4	6,1	26,3	103,9	335,4	1128,1	2863,4	142,4	262,2
	Ж	0,6	0,1	0,2	1,0	3,1	13,7	66,2	225,8	801,5	2762,1	237,5	211,5
300-302	Атеросклероз, заболевания тромбоз и другие болезни (56)	0,1	0,1	0,1	0,2	0,5	1,7	5,3	19,1	95,7	461,0	25,2	30,9
	М	0,1	0,1	0,1	0,2	0,8	2,6	8,6	30,4	138,2	469,2	18,3	36,4
	Ж	0,2	0,1	0,1	0,1	0,3	0,7	2,4	11,7	77,0	458,3	31,2	27,9
303	Флебит, тромбоз, тромбоз, тромбоз, тромбоз (57)	0,0	0,0	0,0	0,0	0,3	0,6	1,8	3,4	6,7	10,8	1,4	1,7
	М	0,1	0,0	0,0	0,0	0,2	0,6	2,0	4,0	8,5	11,6	1,2	2,0
	Ж	—	0,0	—	0,0	0,3	0,7	1,6	2,9	6,0	10,5	1,6	1,5
304, 306	Другие болезни системы кровообращения (58)	0,3	0,0	0,0	0,0	0,1	0,1	0,2	0,4	0,7	1,4	0,2	0,2
	М	0,3	0,0	0,0	0,0	0,1	0,1	0,3	0,5	0,8	1,5	0,2	0,3
	Ж	0,2	0,0	0,1	0,1	0,0	0,0	0,1	0,3	0,6	1,4	0,2	0,2
310-312	Острые инфекции верхних дыхательных путей, острый бронхит и бронхит (59)	253,6	30,9	1,0	0,3	0,2	0,2	0,2	0,3	0,4	1,0	7,5	6,4
	М	275,7	31,7	1,1	0,4	0,3	0,3	0,4	0,6	0,5	1,8	8,8	7,0
	Ж	230,4	30,1	1,0	0,2	0,1	0,1	0,1	0,2	0,3	0,7	6,4	5,9
321	Пневмония (60)	638,0	83,3	3,3	2,3	3,2	7,2	12,9	16,8	22,8	40,9	26,7	24,8
	М	696,6	85,7	3,4	2,8	4,7	12,0	22,3	30,0	40,3	65,1	32,9	32,1
	Ж	547,3	80,7	3,2	1,8	1,7	2,7	4,5	8,1	15,1	32,9	21,2	19,6
322	Грипп (61)	23,4	3,9	0,3	0,2	0,2	0,3	0,5	0,8	1,1	3,2	1,2	1,1
	М	26,0	4,0	0,4	0,2	0,3	0,4	0,6	1,1	1,8	4,4	1,4	1,5
	Ж	20,7	3,8	0,3	0,2	0,1	0,2	0,3	0,5	0,7	2,8	1,0	1,2

Примеры смерти	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего	Стандартизованный показатель	
													серьезный	несерьезный
323	Бронхит хронический и не-уточненный, инфлюэнца и бронхиальная астма (62)	ОП М Ж	0,1 0,1 0,1	0,4 0,4 0,5	0,3 0,4 0,5	1,3 1,3 1,3	3,9 4,8 3,1	16,8 26,1 8,6	50,9 89,8 25,2	139,3 262,0 85,5	377,4 638,7 290,6	29,6 33,8 25,9	34,9 60,8 23,3	21,8 38,1 14,2
313-315, 319, 324- 327, 329	Другие болезни органов дыхания (63)	ОП М Ж	7,5 8,5 6,6	1,7 1,8 1,7	0,4 0,4 0,8	2,2 3,0 1,5	7,0 11,4 2,9	23,9 41,0 8,7	58,7 110,1 24,5	140,7 274,0 82,4	352,0 608,7 266,9	31,2 38,7 24,7	36,7 66,0 22,3	23,8 43,1 13,9
341	Язва желудка и двенадцатиперстной кишки (64)	ОП М Ж	0,0 — 0,0	0,0 0,0 0,0	0,4 0,7 0,1	1,1 2,0 0,3	2,8 5,2 0,5	6,2 11,4 1,7	9,4 18,6 3,3	14,5 31,1 7,3	16,1 32,0 10,8	3,7 5,8 1,8	4,2 8,3 1,7	3,1 6,0 1,1
342	Аппендицит (65)	ОП М Ж	0,3 0,5 0,1	0,4 0,5 0,3	0,3 0,3 0,3	0,3 0,4 0,3	0,5 0,7 0,4	0,9 1,2 0,7	1,7 2,5 1,2	2,7 4,7 1,8	3,5 5,9 2,7	0,8 0,9 0,7	0,9 1,3 0,7	0,7 1,0 0,5
343, 344	Грыжа брюшной полости и непроходимость кишечника (66)	ОП М Ж	7,6 10,1 5,0	0,7 0,9 0,5	0,2 0,3 0,1	0,3 0,4 0,2	1,0 1,3 0,7	2,2 3,0 1,5	4,2 5,0 3,6	9,8 10,7 9,5	19,3 21,1 18,7	2,4 2,3 2,5	2,7 3,2 2,3	2,0 2,4 1,6
348 (67)	Желчнокаменная болезнь и холангит	ОП М Ж	— — —	— — —	0,0 0,0 0,0	0,1 0,0 0,2	0,5 0,4 0,6	1,4 1,3 1,6	4,0 3,5 4,4	12,7 14,6 11,9	25,0 26,7 24,4	2,3 1,6 2,9	2,6 2,7 2,6	1,7 1,7 1,7
347***	Циррозы и другие болезни печени и желчных путей (68)	ОП М Ж	1,8 1,8 1,8	0,5 0,5 0,5	0,4 0,4 0,3	1,0 1,0 0,9	11,6 16,1 7,2	26,6 38,1 16,3	47,1 70,0 32,0	56,7 95,1 39,8	57,4 90,1 46,6	15,3 18,8 12,3	17,9 27,1 12,2	13,0 19,8 8,9
33, 340, 345, 346 349	Другие болезни органов пищеварения (69)	ОП М Ж	22,3 24,1 20,4	2,5 2,7 2,5	0,2 0,3 0,2	0,9 1,0 0,5	5,4 8,4 2,6	8,4 13,0 4,5	13,4 19,1 9,6	24,5 33,2 20,7	35,8 46,8 82,1	6,8 7,9 6,0	7,6 10,7 5,6	5,9 8,2 4,2
350	Нефрит, нефротический (70) синдром и нефроз	ОП М Ж	1,3 1,0 1,6	1,4 1,5 1,3	0,7 0,8 0,7	1,9 2,3 1,6	5,5 6,7 4,3	8,4 10,5 6,6	10,2 13,1 8,2	10,5 15,1 8,4	11,6 24,1 7,4	4,7 5,6 4,0	5,3 7,1 4,2	4,3 5,6 3,4
351	Инфекция почек (71)	ОП М Ж	0,7 0,7 0,6	0,3 0,3 0,3	0,1 0,1 0,2	0,4 0,8 0,9	1,7 1,6 1,7	4,0 3,9 4,1	8,1 7,9 8,3	14,8 20,1 12,5	17,9 34,4 12,5	3,2 3,0 3,4	3,7 4,7 3,4	2,7 3,3 2,5
360	Гиперплазия предстательной железы (72)	ОП М Ж	— — —	— — —	— — —	0,0 0,0 0,0	0,0 0,0 0,0	0,2 0,3 —	1,3 3,3 —	10,0 32,8 —	24,3 97,7 —	1,6 3,4 —	1,8 6,8 —	1,1 4,0 —

Прочие причины	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего	Стандартизованный показатель	
													по возрасту	по полу
352, 353, 359, 361— 363, 369, 37	Другие болезни мочеполовой системы (73) ОП М Ж	0,6 0,9 0,5	0,3 0,4 0,2	0,1 0,1 0,1	0,3 0,2 0,4	0,5 0,4 0,6	1,0 0,7 1,1	1,8 1,9 1,8	3,6 4,1 3,2	7,1 11,1 5,4	8,4 15,6 6,0	1,6 1,6 1,6	1,8 2,4 1,5	1,2 1,5 1,2
38	Аборт (74) ОП М Ж	— — —	— — —	— — —	0,4 — 0,9	0,8 — 1,5	0,6 — 1,3	0,0 — 0,0	— — —	— — —	— — —	0,2 — 0,5	0,2 — 0,5	0,2 — 0,5
390	Кровотечение при беременности и родах (75) ОП М Ж	— — —	— — —	— — —	0,2 0,2 0,3	0,3 0,3 0,3	0,3 0,3 0,3	0,0 0,0 0,0	— — —	— — —	— — —	0,1 — 0,2	0,1 — 0,2	0,1 — 0,2
391	Токсикозы беременных (76) ОП М Ж	— — —	— — —	— — —	0,3 0,3 0,3	0,2 0,2 0,2	0,1 0,1 0,1	0,0 0,0 0,0	— — —	— — —	— — —	0,1 — 0,2	0,1 — 0,2	0,1 — 0,2
392—394, 399, 40, 41	Другие осложнения беременности, родов и послеродового периода (77) ОП М Ж	— — —	— — —	— — —	0,6 0,7 1,5	0,4 1,3 2,7	0,2 1,1 1,9	0,0 0,1 0,2	— — —	— — —	— — —	0,2 0,5 0,8	0,2 0,5 0,8	0,2 0,5 0,8
42	Болезни кожи и подкожной клетчатки (78) ОП М Ж	2,0 2,0 2,0	0,3 0,3 0,2	0,1 0,1 0,1	0,3 0,3 0,3	0,3 0,3 0,3	0,7 0,7 0,7	1,0 1,1 0,9	1,6 1,8 1,5	2,0 2,6 1,8	— — —	0,7 0,7 0,7	0,8 0,9 0,7	0,7 0,7 0,6
43 (79)	Болезни костно-мышечной системы и соединительной ткани (79) ОП М Ж	1,6 1,8 1,4	0,2 0,2 0,2	0,3 0,3 0,3	0,5 0,5 0,5	0,7 0,6 0,7	1,0 1,0 1,1	2,0 1,8 2,3	3,3 3,1 3,5	3,6 3,4 3,7	2,9 3,4 2,7	1,3 1,1 1,5	1,4 1,4 1,5	1,2 1,1 1,2
440	Spiral bifida (80) ОП М Ж	35,2 37,1 33,1	2,7 2,9 2,5	0,3 0,4 0,3	0,1 0,2 0,1	0,1 0,1 0,1	0,0 0,1 0,0	0,0 0,0 0,0	0,0 0,0 0,0	— — —	— — —	0,8 1,1 0,8	0,8 0,9 0,8	1,1 1,3 1,1
442 (81)	Врожденные аномалии сердца и систем кровообращения (81) ОП М Ж	147,2 161,1 132,6	7,6 7,7 7,5	1,8 1,8 1,7	1,3 1,4 1,2	0,8 0,9 0,7	0,6 0,6 0,6	0,4 0,5 0,3	0,3 0,3 0,3	0,2 0,2 0,2	0,2 0,2 0,2	4,2 4,9 3,6	3,6 3,8 3,3	5,1 5,5 4,7
441, 443— 447, 449	Другие врожденные аномалии (82) ОП М Ж	149,1 162,2 135,4	5,4 5,7 5,1	1,3 1,5 1,1	0,8 0,8 0,6	0,5 0,6 0,5	0,8 0,9 0,6	1,0 1,1 1,0	0,9 1,1 0,9	0,5 0,6 0,4	0,5 1,0 0,4	4,0 4,8 3,4	3,5 3,9 3,1	4,9 5,3 4,4
453	Родовая травма (83) ОП М Ж	121,0 150,6 90,0	0,0 0,0 0,0	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	2,4 3,2 1,6	1,9 2,4 1,4	2,9 3,6 2,2

Причины смерти	Возрастные группы	0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 и старше	Всего	Стандартизованный индекс	
													серийный	экспертный
450-452. Другие состояния, возникающие в перинатальном периоде	(86)	562,1	0,0	—	—	—	—	—	—	—	—	10,9	9,0	13,5
454, 455, 459	М	669,1	0,0	—	—	—	—	—	—	—	—	14,2	10,7	16,1
465 (865) Старость без упоминания о пиктозе	Ж	449,8	0,0	—	—	—	—	—	—	—	—	8,0	7,2	10,8
Е 47-Е 53 Несчастные случаи и неблагоприятные реакции	(86)	92,5	—	—	—	—	—	—	—	—	—	0,3	0,5	0,2
Е 471 (87) Дорожные и транспортные несчастные случаи	М	100,6	53,1	23,8	46,5	76,0	101,3	119,6	99,9	80,6	113,1	73,9	77,7	69,8
Е 472-Е 474, Е 479	Ж	83,9	60,2	33,0	76,7	132,4	172,0	189,2	171,5	137,6	160,7	116,3	126,5	111,9
Е 480, Е 472-Е 474, Е 479	М	1,9	5,2	6,0	15,8	17,7	15,4	15,3	13,9	15,5	17,4	13,3	13,4	12,5
Е 480 (88) Другие транспортные несчастные случаи	Ж	1,8	4,3	4,1	5,3	4,6	5,4	6,9	7,8	11,1	13,6	6,2	6,1	5,6
Е 480 (89) Случайные отравления	М	0,3	0,7	0,9	3,3	4,7	5,2	5,3	4,7	5,4	8,3	3,8	4,0	3,5
Е 480 (90) Несчастные случаи в результате падения	Ж	0,2	0,8	1,3	5,4	8,1	8,7	8,8	7,7	8,5	14,3	6,0	6,6	5,7
Е 480 (91) Несчастные случаи в результате пожара, в загорании	М	0,3	0,6	0,6	1,2	1,3	1,8	2,2	2,8	4,1	6,3	1,9	1,9	1,6
Е 480 (92) Несчастные случаи, вызванные утоплением и погрузкой в воду	Ж	6,0	9,7	1,6	4,9	17,6	35,0	46,8	35,2	17,7	16,5	19,5	21,5	18,1
Е 480 (93) Несчастные случаи, вызванные огнестрельным оружием	М	6,5	10,8	1,8	7,3	30,6	58,9	77,0	59,3	30,0	26,9	30,9	35,2	29,2
Е 480 (94) Лекарственные средства и медикаменты как причина неблагоприятных реакций при терапевтическом применении	Ж	5,5	8,5	1,4	2,3	4,6	12,1	20,1	19,3	12,3	13,1	9,4	10,0	8,4
Е 50	М	4,8	2,7	1,1	1,7	3,2	4,1	5,0	5,4	7,8	26,0	4,2	4,6	3,7
Е 51 (51) Несчастные случаи в результате пожара, в загорании	Ж	5,2	2,9	1,6	3,0	5,6	7,2	8,7	9,5	12,7	24,4	5,8	6,9	5,7
Е 521	М	4,4	2,4	0,6	0,5	0,7	1,1	1,8	2,7	5,6	25,2	2,9	2,7	2,0
Е 521 (51) Несчастные случаи в результате пожара, в загорании	Ж	4,5	6,4	0,9	0,9	1,9	2,9	3,8	3,9	4,9	10,0	3,0	3,2	2,9
Е 521 (92) Несчастные случаи, вызванные утоплением и погрузкой в воду	М	4,5	6,6	1,1	1,2	3,0	4,8	6,5	6,3	7,0	13,0	3,9	4,6	4,0
Е 521 (93) Несчастные случаи, вызванные огнестрельным оружием	Ж	4,5	6,0	0,8	0,7	0,9	1,1	1,5	2,3	4,0	9,0	2,1	2,1	1,9
Е 524	М	2,0	14,4	7,8	8,0	10,7	10,2	9,1	6,4	5,0	5,4	8,7	8,6	8,8
Е 524 (93) Несчастные случаи, вызванные огнестрельным оружием	Ж	1,8	17,1	11,5	13,8	19,9	18,6	16,6	12,8	10,5	9,5	15,1	14,9	14,7
Е 53	М	2,2	11,6	4,1	2,0	1,5	2,1	2,3	2,1	2,6	4,1	3,1	3,1	3,4
Е 53 (93) Несчастные случаи, вызванные огнестрельным оружием	Ж	0,1	0,1	0,3	0,4	0,3	0,3	0,1	0,1	0,1	0,1	0,2	0,2	0,2
Е 53 (94) Несчастные случаи, вызванные огнестрельным оружием	М	0,1	0,1	0,5	0,7	0,6	0,5	0,3	0,3	0,2	0,2	0,4	0,4	0,4
Е 53 (95) Несчастные случаи, вызванные огнестрельным оружием	Ж	0,1	0,1	0,1	0,0	0,0	0,0	0,0	—	0,0	0,1	0,0	0,0	0,1
Е 53 (96) Несчастные случаи, вызванные огнестрельным оружием	М	0,7	0,2	0,0	0,1	0,2	0,2	0,2	0,3	0,3	0,4	0,2	0,2	0,2
Е 53 (97) Несчастные случаи, вызванные огнестрельным оружием	Ж	0,8	0,2	0,0	0,1	0,1	0,2	0,2	0,3	0,3	0,7	0,2	0,2	0,2
Е 53 (98) Несчастные случаи, вызванные огнестрельным оружием	М	0,6	0,2	0,0	0,1	0,2	0,2	0,2	0,3	0,3	0,3	0,2	0,2	0,2
Е 53 (99) Несчастные случаи, вызванные огнестрельным оружием	Ж	0,6	0,2	0,0	0,1	0,2	0,2	0,2	0,3	0,3	0,3	0,2	0,2	0,2
Е 53 (100) Несчастные случаи, вызванные огнестрельным оружием	М	0,6	0,2	0,0	0,1	0,2	0,2	0,2	0,3	0,3	0,3	0,2	0,2	0,2

Возрастные группы	Стандартизованный показатель		Всего	75 и старше	65-74	55-64	45-54	35-44	25-34	15-24	5-14	1-4	0	Причины смерти
	серьезный	не серьезный												
46.8-46.4, 46.6, 46.7 (95) E49, E520, Прочие травмы и отравле- ния, симптомы и другие М E522, E523, E529, E54-E56 недостаточно обозначенные Ж состояния	64.6 104.9 29.7	59.9 99.3 26.0	64.8 104.9 29.7	90.8 154.2 69.7	72.2 130.5 46.7	88.7 157.8 42.9	111.5 187.7 43.9	97.3 163.2 34.4	77.7 132.7 21.9	42.8 71.9 12.7	7.1 10.2 4.0	18.3 19.9 16.4	106.7 118.9 98.0	

(96) Материалы, включая исчисления показателей, подготовлены Управлением медицинском статистики и вычислительной техники Минздрава СССР и ВНИИ социальной гигиены и организации здравоохранения им. Н. А. Семашко на основе статистической отчетности Губкомстата СССР

(97) * На 100 000 родившихся живыми.

(98) ** Стандарты населения. См. 1966 World Health Statistics, Geneva, 1966, стр. XVII.

*** МКБ-9 — 570-573, 575.2-575.9, 576 (99)

1985 USSR Mortality Figures by Age Group (per 1,000,000 people)

Key:

1. Age Groups
2. 75 or older
3. Total
4. Standardized Index**
5. European Standard
6. World Standard
7. Causes of Death (МКБ-9)
8. All Causes
9. Both Sexes, Men, Women
10. Infectious and Parasitic Diseases
11. Typhoid Fever
12. Other Infectious Intestinal Diseases
13. Whooping Cough
14. Meningococcal Infection
15. Tetanus
16. Septicemia
17. Other Bacterial Diseases
18. Measles
19. Other Viral Diseases
20. Malaria
21. Other Diseases Transmitted by Arthropodae
22. Other Infectious and Parasitic Diseases
23. Malignant Tumors
24. Malignant Tumors of the Lip, Mouth Cavity, and Throat
25. Malignant Tumors of the Esophagus
26. Malignant Tumors of the Stomach
27. Malignant Tumors of the Colon
28. Malignant Tumors of the Rectum, Rectosigmoid, and Anus
29. Malignant Tumors of the Larynx
30. Malignant Tumors of the Trachea, Bronchi, and Lung
31. Malignant Tumors of the Mammary Glands
32. Malignant Tumors of the Cervix Uteri
33. Malignant Tumors of Other Parts of the Uterus
34. Malignant Tumors of the Prostate
35. Leukosis
36. Other Malignant Tumors of Lymphatic and Hemogenic Tissue
37. Malignant Tumors in Other Locations
38. Benign and Poorly Defined Tumors
39. Diabetes
40. Other Diseases of the Endocrine System and Metabolic and Immune Disorders
41. Anemia
42. Other Diseases of the Blood and Blood-Producing Organs
43. Mental Disorders
44. Meningitis
45. Multiple Sclerosis
46. Epilepsy

47. Other Diseases of the Nervous System and Sensory Organs
48. Blood-Circulation System Diseases
49. Active Rheumatism
50. Chronic Rheumatic Heart Disease
51. Hypertension
52. Acute Myocardial Infarction
53. Other Forms of Ischemic Heart Disease
54. Pulmonary Circulation Disorders and Other Heart Diseases
55. Cerebrovascular Diseases
56. Atherosclerosis, Embolism, Thrombosis, and Other Diseases of the Arteries, Arterioles, and Capillaries
57. Phlebitis, Thrombophlebitis, Venous Embolism and Thrombosis
58. Other Diseases of the Circulatory System
59. Acute Infections of the Upper Respiratory Tracts, Acute Bronchitis and Bronchiolitis
60. Pneumonia
61. Influenza
62. Chronic and Unspecified Bronchitis, Emphysema, Bronchial Asthma
63. Other Diseases of the Respiratory Organs
64. Gastric and Duodenal Ulcers
65. Appendicitis
66. Abdominal Hernia and Intestinal Obstruction
67. Cholelithiasis and Cholecystitis
68. Cirrhosis and Other Diseases of the Liver and the Bile Ducts
69. Other Diseases of the Digestive Organs
70. Nephritis, Nephrotic Syndrome, Nephrosis
71. Kidney Infection
72. Hyperplasia of the Prostate Gland
73. Other Diseases of the Genitourinary System
74. Abortion
75. Hemorrhage During Pregnancy or Childbirth
76. Toxemia in Pregnancy
77. Other Complications of Pregnancy, Childbirth, and the Postpartum Period
78. Skin and Subcutaneous Fat Disease
79. Diseases of the Skeletomuscular System and Connective Tissue
80. Spina Bifida and Hydrocephalus
81. Congenital Anomalies of the Heart and the Circulatory System
82. Other Congenital Anomalies
83. Birth Injury
84. Other Conditions in the Perinatal Period
85. Old Age Without Psychosis
86. Accidents and Adverse Reactions
87. Highway Accidents
88. Other Transportation Accidents
89. Accidental Poisonings
90. Falls
91. Burns and Sunburn
92. Drowning
93. Gunshot Wounds
94. Adverse Reactions with Therapeutic Drugs and Medications
95. Other Injuries and Poisonings, Symptoms and Other Poorly Defined Conditions
96. The materials, including the computation of the figures, were prepared by the Medical Statistics and Computer Technology Administration of the USSR Ministry of Health and the All-Union Scientific Research Institute of Public Hygiene and Health Care Management imeni N. A. Semashko on the basis of statistics supplied by Goskomstat USSR
97. *Per 100,000 live births
98. **Populations standards. See 1986 World Health Statistics, Geneva, 1986, page XVII
99. ***MKB-9:
570-573,
575.2-575.9,
576

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Morbidity Statistics for Venereal, Skin Diseases

18400347b Moscow SOVETSKOYE

ZDRAVOOKHRANENIYE in Russian

No 2, Feb 88 pp 66-72

[Article consists of fifteen tables]

[Text] Statistical Materials

Table 1: Venereal Disease Among USSR Population (Number of Patients with First-Time Diagnosis per 100,000 People)

(1) Годы	(2) сифилис все формы	(3) в т.ч. ранние формы с симптомами	(4) гонорея	(5) Годы	(6) сифилис все формы	(7) в т.ч. ранние формы с симптомами	(8) гонорея
1955	12.4	—	92.0	1971	19.5	15.8	113.4
1956	16.1	3.3	83.6	1972	23.3	18.6	110.4
1957	7.8	2.5	76.0	1973	22.1	17.5	105.1
1958	6.2	1.7	70.0	1974	19.7	15.4	113.4
1959	5.0	1.2	65.4	1975	18.4	14.8	127.5
1960	4.2	1.1	73.8	1976	20.6	16.5	138.2
1961	3.8	1.2	72.5	1977	21.0	16.6	142.0
1962	3.5	1.2	68.6	1978	22.4	17.9	148.2
1963	2.9	1.0	72.2	1979	21.3	16.7	147.4
1964	2.9	1.1	83.3	1980	19.7	15.1	147.9
1965	2.9	1.3	86.6	1981	17.3	13.1	146.6
1966	4.1	2.5	92.6	1982	15.5	11.6	144.0
1967	5.3	3.6	94.5	1983	13.8	10.1	136.6
1968	7.6	5.6	105.3	1984	11.8	8.3	125.9
1969	10.8	8.3	105.6	1985	9.6	6.7	113.0
1970	14.2	11.1	106.0	1986	7.6	4.8	94.6

Key: 1. Year—2. Syphilis (All Forms)—3. Early, symptomatic forms of syphilis—4. Gonorrhea—5. Year—6. Syphilis (All Forms)—7. Early, symptomatic forms of syphilis—8. Gonorrhea

Table 2a: Venereal Disease Among Population Of Union Republics (Number of Patients with First-Time Diagnosis per 100,000 People). 1.1. Syphilis—All Forms

1.1.1a	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
(1) СССР	14.2	19.5	23.3	22.1	19.7	18.4	20.6	21.0	22.4	21.3	19.7	17.3	15.5	13.8	11.8	9.6	7.6
(2) РСФСР	13.8	21.8	26.5	24.2	21.5	20.1	22.3	24.9	27.7	25.4	23.0	19.8	17.1	14.8	12.3	9.7	7.2
(3) УССР	9.2	13.0	17.3	17.7	15.9	16.5	19.2	18.4	17.9	17.7	15.0	12.0	10.4	9.6	8.2	7.8	7.3
(4) БССР	4.3	5.6	5.8	5.3	7.1	9.6	9.2	8.9	7.3	7.3	8.4	6.2	5.6	4.5	3.6	3.5	2.8
(5) Узбекская ССР	30.9	20.1	14.4	9.9	7.9	6.8	7.8	7.1	8.6	9.4	10.9	12.9	16.2	17.7	15.7	12.5	7.6
(6) Казахская ССР	21.0	23.0	20.7	18.6	15.0	14.0	14.7	12.1	11.1	12.8	18.1	20.6	19.4	18.2	14.5	10.3	8.2
(7) Грузинская ССР	21.2	20.6	38.8	49.0	41.6	29.7	28.9	26.8	24.3	25.1	23.6	20.7	19.5	19.2	17.8	17.1	21.5
(8) Азербайджанская ССР	6.9	7.1	8.4	8.4	11.0	8.6	12.4	13.2	15.7	18.2	13.4	12.6	9.0	7.5	6.8	5.0	5.0
(9) Литовская ССР	10.6	13.7	16.4	28.5	53.5	43.8	39.0	24.5	13.0	8.9	9.8	9.5	14.7	9.2	5.5	3.2	2.4
(10) Молдавская ССР	38.5	52.4	53.8	43.2	31.3	37.1	59.1	46.6	56.8	52.6	49.0	40.2	27.7	23.5	23.0	17.8	9.7
(11) Латвийская ССР	10.4	28.9	54.8	62.5	51.8	30.9	19.0	18.2	17.4	13.9	11.0	8.4	7.9	5.8	5.0	8.9	8.8
(12) Киргизская ССР	21.8	24.5	28.8	28.1	27.8	20.5	19.0	18.4	17.0	32.0	39.0	37.3	31.2	26.1	23.8	18.6	9.6
(13) Таджикская ССР	24.5	40.8	39.5	27.4	18.3	12.5	9.0	10.0	12.9	11.9	8.5	10.4	14.6	12.2	16.6	16.3	10.6
(14) Армянская ССР	6.4	14.6	17.7	14.2	13.4	14.5	20.7	23.7	22.8	17.4	16.3	13.6	13.8	13.3	12.2	10.2	8.5
(15) Туркменская ССР	13.3	20.6	12.4	14.7	21.2	25.2	25.5	17.3	15.0	17.8	14.9	13.2	14.6	13.6	11.9	10.2	14.2
(16) Эстонская ССР	7.8	5.2	11.3	18.0	17.3	24.0	42.5	27.3	30.5	36.4	29.1	17.7	8.3	7.1	6.8	6.8	5.4

Key: 1. USSR—2. RSFSR—3. UkSSR—4. BSSR—5. UzSSR—6. KaSSR—7. GSSR—8. AzSSR—9. LiSSR—10. MSSR—11. LaSSR—12. KiSSR—13. TaSSR—14. ArSSR—15. TuSSR—16. ESSR

Table 2b: Venereal Disease Among Population Of Union Republics (Number of Patients with First-Time Diagnosis per 100,000 People). 1.2. Syphilis—Early, Symptomatic Forms

Республика	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
1 СССР	11.1	15.8	18.6	17.5	15.4	14.8	16.5	16.6	17.9	16.7	15.1	13.1	11.6	10.1	8.3	6.7	4.8
2 РСФСР	11.6	18.5	22.3	20.1	17.5	16.5	18.6	20.5	22.9	20.5	18.2	15.4	13.1	11.2	9.1	7.2	4.9
3 УССР	6.5	9.9	13.3	13.8	12.2	13.4	15.4	14.1	14.0	13.8	11.3	8.8	7.5	7.0	5.6	5.6	5.0
4 БССР	3.1	4.2	4.3	4.0	5.3	7.9	7.7	6.9	5.6	5.4	6.3	4.5	3.8	2.9	2.3	2.3	1.8
5 Узбекская ССР	21.3	12.8	1.9	5.9	4.6	4.2	5.4	4.9	6.0	7.0	8.1	9.8	12.4	13.3	10.6	7.4	3.4
6 Казахская ССР	16.7	17.9	15.4	14.0	11.2	10.5	11.1	8.9	8.1	10.0	14.0	16.6	15.1	13.2	10.6	7.2	5.5
7 Грузинская ССР	11.5	12.8	24.9	30.6	24.1	17.6	17.0	14.6	12.8	12.3	12.2	11.9	11.2	10.5	8.7	8.9	10.8
8 Азербайджанская ССР	5.9	6.0	6.8	6.4	8.2	7.0	9.7	10.3	11.6	13.2	8.2	7.2	4.3	3.7	3.4	2.0	2.3
9 Литовская ССР	6.9	10.3	12.4	22.8	44.7	35.2	29.6	17.1	8.0	5.5	6.1	6.0	11.0	6.7	3.2	1.4	1.1
10 Молдавская ССР	26.4	37.8	36.4	28.9	20.2	29.0	47.7	38.4	47.6	41.2	35.7	28.1	19.4	16.1	15.8	11.8	5.3
11 Латвийская ССР	7.4	23.8	46.8	73.0	41.3	24.5	12.9	13.1	13.4	9.7	7.1	6.1	5.9	3.5	2.9	6.3	7.1
12 Киргизская ССР	17.2	19.5	22.6	21.4	20.6	14.6	13.2	12.6	12.7	26.0	29.0	26.9	21.0	17.9	16.9	13.4	5.4
13 Таджикская ССР	18.6	32.2	26.2	13.0	8.5	6.7	5.6	6.9	9.4	7.6	5.0	7.8	10.9	8.5	11.6	10.6	4.3
14 Армянская ССР	4.2	11.7	12.9	9.4	9.7	10.8	15.9	17.6	15.0	8.7	9.4	8.4	10.1	8.6	8.9	6.6	6.0
15 Туркменская ССР	11.3	17.1	10.5	12.3	18.4	20.0	21.2	13.0	11.2	13.3	12.0	8.6	11.0	9.1	7.8	6.0	8.7
16 Эстонская ССР	6.0	3.8	9.6	15.3	14.9	20.2	36.3	21.3	25.9	31.6	24.5	13.5	5.4	4.5	5.4	5.3	4.2

Key: 1. USSR—2. RSFSR—3. UKSSR—4. BSSR—5. UzSSR—6. KaSSR—7. GSSR—8. AzSSR—9. LiSSR—10. MSSR—11. LaSSR—12. KiSSR—13. TaSSR—14. ArSSR—15. TuSSR—16. ESSR

Table 2c: Venereal Disease Among Population Of Union Republics (Number of Patients with First-Time Diagnosis per 100,000 People). 2. Gonorrhea (Acute and Chronic)

Республика	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
1 СССР	106.0	113.4	110.4	105.1	113.4	127.3	138.2	142.0	148.2	147.4	147.9	144.6	144.0	136.6	123.9	113.0	94.6
2 РСФСР	135.4	146.6	141.7	133.5	147.0	166.0	181.0	187.1	196.1	193.3	196.2	194.0	189.9	179.2	166.2	147.7	117.9
3 УССР	75.3	80.1	78.8	75.1	77.5	89.6	96.9	101.0	103.4	101.0	99.2	98.9	98.5	94.1	89.0	82.7	77.7
4 БССР	48.6	56.2	59.6	59.5	73.6	83.7	99.8	109.6	120.3	119.4	117.2	114.9	118.6	116.7	107.5	96.3	85.9
5 Узбекская ССР	42.9	45.5	41.7	39.3	41.5	41.6	41.3	38.1	38.6	39.5	37.4	36.6	39.0	37.7	35.5	29.9	27.2
6 Казахская ССР	104.4	107.1	108.8	106.1	112.6	121.1	137.8	133.6	138.0	133.0	143.4	147.0	140.6	132.5	116.6	111.8	96.8
7 Грузинская ССР	30.3	34.3	34.4	28.9	34.6	34.7	36.3	40.3	46.9	49.0	48.8	60.0	68.4	70.0	71.3	76.3	112.2
8 Азербайджанская ССР	20.7	19.1	17.4	15.7	18.8	20.5	20.3	20.8	19.5	23.0	23.0	22.3	22.6	18.6	19.4	16.8	18.7
9 Литовская ССР	116.0	121.9	117.3	122.3	119.8	129.3	117.3	113.1	124.9	140.4	154.8	130.3	147.1	150.1	134.9	123.3	96.3
10 Молдавская ССР	101.6	107.3	110.8	116.5	120.3	132.2	137.8	125.6	136.4	153.7	154.7	148.0	145.3	145.2	122.8	119.8	110.7
11 Латвийская ССР	149.3	140.1	160.3	171.5	154.5	152.6	158.7	158.0	161.2	164.4	160.8	180.7	178.4	158.2	129.9	111.4	92.6
12 Киргизская ССР	80.6	83.7	83.5	79.6	65.4	75.1	88.4	82.4	79.8	77.8	89.2	91.9	101.6	87.1	76.8	68.7	58.1
13 Таджикская ССР	55.6	70.2	61.7	54.3	34.2	53.6	56.4	61.7	60.6	48.6	51.1	45.8	44.6	43.2	42.7	30.3	24.4
14 Армянская ССР	22.7	28.6	22.1	23.4	34.9	35.4	25.9	49.0	62.0	67.4	66.8	62.9	55.8	54.8	48.2	45.0	44.3
15 Туркменская ССР	46.7	45.0	52.9	45.1	42.7	65.7	77.4	73.4	60.7	60.8	63.6	59.6	50.1	44.0	43.9	37.2	31.5
16 Эстонская ССР	227.2	206.9	240.0	220.8	229.6	239.5	252.7	239.4	255.0	242.4	236.4	205.5	198.6	197.1	185.6	154.8	117.3

Key: 1. USSR—2. RSFSR—3. UKSSR—4. BSSR—5. UzSSR—6. KaSSR—7. GSSR—8. AzSSR—9. LiSSR—10. MSSR—11. LaSSR—12. KiSSR—13. TaSSR—14. ArSSR—15. TuSSR—16. ESSR

Table 3a: Frequency of the Detection of Venereal Disease in Preventive Check-Ups

		(1) Число больных сифилисом (всех форм) с впервые в жизни установленным диагнозом, выявленных при профилактике в % к числу больных на учет					
		1965	1970	1975	1980	1985	1986
(2)	СССР	26,9	46,3	63,0	72,6	77,6	78,6
(3)	РСФСР	21,6	42,7	62,5	72,4	78,5	78,7
(4)	УССР	41,5	43,8	61,3	72,6	74,0	75,2
(5)	БССР	50,9	69,2	72,6	64,4	84,4	87,9
(6)	Узбекская ССР	21,2	55,7	61,8	69,4	78,1	85,2
(7)	Казахская ССР	23,5	52,6	64,3	69,6	75,9	78,0
(8)	Грузинская ССР	17,1	43,1	65,7	63,6	79,4	80,8
(9)	Азербайджанская ССР	9,4	50,6	59,0	64,4	69,3	72,9
(10)	Литовская ССР	26,7	58,1	68,3	82,5	85,1	87,2
(11)	Молдавская ССР	30,1	54,6	71,4	79,7	84,5	86,7
(12)	Латвийская ССР	19,5	47,1	83,4	76,8	81,0	83,3
(13)	Киргизская ССР	60,0	41,8	59,1	76,6	82,6	91,1
(14)	Таджикская ССР	24,1	46,4	71,9	77,9	70,0	79,8
(15)	Армянская ССР	13,4	48,1	36,6	78,7	77,4	77,5
(16)	Туркменская ССР	4,8	55,2	51,8	73,2	64,2	56,8
(17)	Эстонская ССР	44,0	56,2	61,1	76,8	78,8	74,7

Key: 1. Number of syphilis patients (all forms) with first-time diagnosis identified in preventive check-ups, expressed in percentage of cases on record—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 3b: Frequency of the Detection of Venereal Disease in Preventive Check-Ups

		(1) Число больных с впервые в жизни установленным диагнозом гонореей (острой и хронической), выявленных при профилактике в % к числу больных на учет					
		1965	1970	1975	1980	1985	1986
(2)	СССР	11,9	30,1	45,0	54,4	57,9	57,9
(3)	РСФСР	10,8	29,3	43,6	53,2	56,2	55,9
(4)	УССР	18,6	31,1	48,6	56,8	59,8	59,0
(5)	БССР	21,4	47,3	55,8	64,4	68,8	69,2
(6)	Узбекская ССР	2,2	33,4	46,8	55,4	58,5	57,3
(7)	Казахская ССР	8,3	24,7	41,6	53,6	58,4	60,8
(8)	Грузинская ССР	11,4	27,6	53,9	60,0	68,7	68,4
(9)	Азербайджанская ССР	2,7	37,0	45,1	39,7	42,8	46,1
(10)	Литовская ССР	8,3	36,2	56,7	71,5	72,6	71,2
(11)	Молдавская ССР	10,6	45,6	58,8	66,1	68,8	70,8
(12)	Латвийская ССР	11,6	27,1	52,7	63,8	76,2	73,7
(13)	Киргизская ССР	15,6	24,8	33,1	36,9	57,4	58,6
(14)	Таджикская ССР	14,8	42,0	44,2	45,5	53,1	51,6
(15)	Армянская ССР	2,1	13,6	22,8	45,2	57,7	60,0
(16)	Туркменская ССР	2,5	32,1	43,2	55,7	47,5	42,2
(17)	Эстонская ССР	22,0	20,8	67,4	56,1	56,1	53,1

Key: 1. Number of patients with first-time diagnosis of gonorrhea (acute or chronic) identified in preventive check-ups, expressed in percentage of cases on record—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 4: Identification of Female Gonorrhea Patients by Obstetrician-Gynecologists

		(1) Число женщин, больных гонореей, выявленных акушерами — гинекологами в % к числу женщин изъятых на учет с впервые в жизни установленным диагнозом гонорея				
		1970	1975	1980	1985	1986
(2)	СССР	35,9	28,5	35,4	38,7	38,5
(3)	РСФСР	40,4	31,0	36,8	39,8	39,7
(4)	УССР	27,7	20,9	30,7	34,3	33,9
(5)	БССР	18,6	22,2	32,7	39,7	38,9
(6)	Узбекская ССР	20,7	15,7	28,3	34,9	33,1
(7)	Казахская ССР	29,7	23,7	33,7	35,1	39,1
(8)	Грузинская ССР	53,3	33,9	41,3	40,7	35,5
(9)	Азербайджанская ССР	100,0	9,5	9,7	31,8	35,7
(10)	Литовская ССР	26,7	35,9	37,5	40,2	42,8
(11)	Молдавская ССР	26,7	29,7	36,7	39,6	38,5
(12)	Латвийская ССР	39,9	34,5	43,9	46,5	46,9
(13)	Киргизская ССР	37,8	41,9	47,1	40,9	40,4
(14)	Таджикская ССР	76,4	9,3	11,2	25,1	18,9
(15)	Армянская ССР	19,7	19,8	27,6	38,0	38,6
(16)	Туркменская ССР	28,2	12,6	28,4	30,3	26,6
(17)	Эстонская ССР	49,2	21,4	33,2	31,1	34,6

Key: 1. Number of female gonorrhea patients identified by obstetrician-gynecologists, expressed in percentage of cases of women with first-time diagnosis of gonorrhea on record—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 5a: Patients No Longer Listed as Having Syphilis or Gonorrhea, as a Result of Recovery

		(1) Число снятых с учета в связи с излечением больных сифилисом в % к числу больных, состоящих на учете на начало года				
		1965	1970	1975	1980	1985
(2)	СССР	15,8	8,9	6,9	12,9	22,1
(3)	РСФСР	18,0	9,9	6,2	12,1	23,4
(4)	УССР	12,7	7,9	6,7	13,2	23,6
(5)	БССР	12,1	9,1	10,5	13,8	24,7
(6)	Узбекская ССР	15,5	22,3	8,6	8,0	7,9
(7)	Казахская ССР	20,2	5,1	10,0	15,4	21,4
(8)	Грузинская ССР	11,7	11,8	10,5	25,6	29,8
(9)	Азербайджанская ССР	16,3	22,4	12,7	12,5	21,6
(10)	Литовская ССР	13,2	7,3	4,1	17,9	22,9
(11)	Молдавская ССР	14,3	6,6	6,0	11,6	20,7
(12)	Латвийская ССР	14,6	7,2	3,9	14,0	21,0
(13)	Киргизская ССР	28,8	9,5	5,3	14,4	18,2
(14)	Таджикская ССР	16,7	3,8	5,8	21,9	15,9
(15)	Армянская ССР	12,1	23,9	10,8	10,9	25,9
(16)	Туркменская ССР	11,7	6,3	8,7	10,5	14,4
(17)	Эстонская ССР	22,2	12,8	7,4	8,7	31,7

Key: 1. Number of people no longer listed as having syphilis, as a result of recovery, expressed in percentage of cases on record at the beginning of the year—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 5b: Patients No Longer Listed as Having Syphilis or Gonorrhea, as a Result of Recovery

		(1) 2.2 Число снятых с учета в связи с излечением больных хроническим гонореей в % к числу больных, состоявших на учете в течение года					
		1965	1970	1975	1980	1985	1986
(2)	СССР	68,0	68,4	68,3	68,3	71,0	74,5
(3)	РСФСР	69,4	67,7	65,3	67,4	69,9	71,4
(4)	УССР		71,8	69,9	71,9	74,7	73,8
(5)	БССР		71,3	70,3	73,1	71,1	74,5
(6)	Узбекская ССР	76,5	68,3	68,6	66,5	59,8	59,5
(7)	Казахская ССР	67,9	70,0	69,4	71,9	73,3	73,2
(8)	Грузинская ССР	71,2	76,8	74,6	75,3	83,4	73,8
(9)	Азербайджанская ССР	89,7	77,4	81,5	77,5	78,0	81,2
(10)	Литовская ССР	57,9	66,9	68,3	68,7	68,7	70,2
(11)	Молдавская ССР	44,3	54,5	56,8	55,8	73,1	70,6
(12)	Латвийская ССР	54,2	66,0	57,2	63,6	66,0	58,0
(13)	Киргизская ССР	58,1	65,4	73,8	74,3	85,7	83,4
(14)	Таджикская ССР	60,6	64,4	63,6	58,1	69,6	75,7
(15)	Армянская ССР	81,1	83,9	83,7	75,6	51,4	68,8
(16)	Туркменская ССР	82,3	70,8	52,9	58,6	72,9	64,4
(17)	Эстонская ССР	65,6	68,9	67,5	67,0	76,5	78,1

Key: 1. 2.2. Number of people no longer listed as having chronic gonorrhea, as a result of recovery, expressed in percentage of cases on record for a given year—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 5c: Patients No Longer Listed as Having Syphilis or Gonorrhea, as a Result of Recovery

		(1) 2.1. Число снятых с учета в связи с излечением больных острой гонореей в % к числу больных, состоявших на учете в течение года					
		1965	1970	1975	1980	1985	1986
(2)	СССР	76,8	75,6	72,4	73,5	73,9	74,5
(3)	РСФСР	78,3	75,4	71,8	72,8	73,4	73,9
(4)	УССР	74,3	76,7	75,3	76,4	77,3	76,4
(5)	БССР	81,7	81,6	77,4	78,1	78,6	76,9
(6)	Узбекская ССР	79,5	76,2	74,0	70,4	67,1	66,7
(7)	Казахская ССР	77,4	80,8	72,9	77,9	71,2	80,5
(8)	Грузинская ССР	71,5	74,7	67,7	73,8	81,4	72,8
(9)	Азербайджанская ССР	85,7	81,6	81,0	78,2	75,2	73,5
(10)	Литовская ССР	69,8	72,5	74,4	73,5	72,3	76,9
(11)	Молдавская ССР	47,8	58,6	69,4	67,7	75,3	73,4
(12)	Латвийская ССР	61,8	63,9	60,8	66,0	64,7	62,1
(13)	Киргизская ССР	71,5	76,1	82,8	85,9	87,5	87,2
(14)	Таджикская ССР	83,2	73,4	71,0	71,6	73,4	76,2
(15)	Армянская ССР	77,2	84,4	68,8	69,5	67,0	72,6
(16)	Туркменская ССР	87,7	80,2	65,7	66,2	74,5	73,2
(17)	Эстонская ССР	74,8	78,3	74,1	79,2	83,3	76,8

Key: 1. 2.1. Number of people no longer listed as having acute gonorrhea, as a result of recovery, expressed in percentage of cases on record for a given year—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 6a: Dermatological and Venereal Disease Treatment Facilities. All Departments

		Q) Число кожно-венерологических диспансеров, отделений и кабинетов					
		1960	1965	1970	1980	1985	1986
2)	СССР	5466	5989	6429	5803	5904	5875
3)	РСФСР	2998	3410	3657	3339	3363	3312
4)	УССР	1165	1143	1317	1065	1039	1045
5)	БССР	197	202	202	170	168	169
6)	Узбекская ССР	219	213	212	253	276	284
7)	Казахская ССР	187	282	317	320	342	343
8)	Грузинская ССР	175	146	122	115	121	120
9)	Азербайджанская ССР	115	128	152	114	122	125
10)	Литовская ССР	53	84	76	62	60	60
11)	Молдавская ССР	68	67	57	56	70	71
12)	Латвийская ССР	47	65	63	45	47	46
13)	Киргизская ССР	68	63	71	62	60	68
14)	Таджикская ССР	44	43	45	48	47	51
15)	Армянская ССР	47	53	52	61	84	83
16)	Туркменская ССР	51	51	57	59	59	60
17)	Эстонская ССР	32	39	29	34	37	38

Key: 1. Number of dermatological and venereal disease treatment clinics, departments, and offices—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 6b: Dermatological and Venereal Disease Treatment Facilities. All Departments

		Q) в том числе кожно-венерологических диспансеров					
		1960	1965	1970	1980	1985	1986
2)	СССР	651	605	770	770	792	796
3)	РСФСР	303	284	347	372	381	383
4)	УССР	127	110	126	109	114	115
5)	БССР	30	25	35	33	34	34
6)	Узбекская ССР	39	40	71	68	70	71
7)	Казахская ССР	31	43	63	61	60	60
8)	Грузинская ССР	29	33	37	35	37	37
9)	Азербайджанская ССР	39	22	28	29	28	28
10)	Литовская ССР	5	5	5	6	6	6
11)	Молдавская ССР	9	2	9	9	9	9
12)	Латвийская ССР	4	4	5	6	6	6
13)	Киргизская ССР	9	8	9	7	9	9
14)	Таджикская ССР	5	6	16	15	17	17
15)	Армянская ССР	3	4	4	4	5	5
16)	Туркменская ССР	11	12	10	12	12	12
17)	Эстонская ССР	7	7	5	4	4	4

Key: 1. Number of dermatological and venereal disease treatment clinics—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR

Table 7: Absolute Number of Beds for Individuals with Dermatological or Venereal Disease and Their Relative Number in Terms of the Populations of the USSR and the Union Republics (at the End of the Year Listed)

	(1) Число мест для больных кожными и венерическими болезнями											
	1950		1960		1970		1980		1985		1986	
	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.
1. СССР	30 000	1.7	31 000	1.4	52 600	2.2	75 213	2.8	77 656	2.8	77 366	2.7
2. РСФСР	13 800	1.4	14 900	1.2	24 100	1.8	37 168	2.7	37 717	2.6	37 529	2.6
3. УССР	6300	1.7	5100	1.2	10300	2.2	14 574	2.9	14 082	2.9	14 672	2.9
4. БССР	917	1.4	1196	1.5	2046	2.2	2792	2.9	2984	3.0	2999	3.0
5. Узбекская ССР	2006	3.1	2284	2.6	4582	3.7	6823	3.0	5705	3.1	5795	3.0
6. Казахская ССР	1810	2.7	2609	2.6	4151	3.2	4889	3.2	5160	3.2	5182	3.2
7. Грузинская ССР	899	2.5	908	2.2	1023	2.1	1186	2.4	1136	2.2	1135	2.2
8. Азербайджанская ССР	1176	4.1	965	2.2	1245	2.3	1750	2.8	1640	2.4	1660	2.4
9. Литовская ССР	421	1.8	434	1.5	578	1.9	1055	3.1	1050	2.9	1115	3.1
10. Молдавская ССР	489	2.0	485	1.8	955	2.5	1418	3.6	1450	3.5	1395	3.3
11. Латвийская ССР	382	2.0	307	1.4	451	2.1	981	3.9	1010	3.9	940	3.6
12. Киргизская ССР	505	2.9	531	2.4	810	2.7	1207	3.2	1359	3.4	1399	3.4
13. Таджикская ССР	333	2.3	487	2.3	1395	4.7	1622	4.0	1670	3.6	1691	3.5
14. Армянская ССР	147	1.1	140	0.7	185	0.8	357	1.1	495	1.5	495	1.4
15. Туркменская ССР	674	5.6	647	4.0	848	3.6	965	3.3	949	2.9	949	2.8
16. Эстонская ССР	182	1.7	135	1.1	213	1.3	446	3.0	440	2.9	410	2.6

Key: 1. Number of beds for individuals with dermatological or venereal disease—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR—18. Absolute Number—19. Per 10,000 population

Table 8: Absolute Number of Dermatologist-Venereologists and Their Relative Number in Terms of the Populations of the USSR and the Union Republics (at the End of the Year Listed)

	(1) Число врачей дерматологов-венерологов (физическая лица)											
	1950		1960		1970		1980		1985		1986	
	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.	абс. число	на 10 000 чел. нас.
1. СССР	9216	0.5	9355	0.4	12 431	0.5	16 722	0.6	17 823	0.6	18 192	0.6
2. РСФСР	4960	0.5	5119	0.4	6582	0.5	9184	0.7	9602	0.7	9853	0.7
3. УССР	2064	0.6	19 11	0.4	2693	0.6	3239	0.6	3356	0.7	3389	0.7
4. БССР	237	0.3	296	0.4	441	0.5	567	0.6	602	0.6	616	0.6
5. Узбекская ССР	296	0.5	335	0.4	552	0.4	729	0.5	925	0.5	925	0.5
6. Казахская ССР	312	0.5	363	0.3	594	0.5	877	0.6	981	0.6	990	0.6
7. Грузинская ССР	405	1.1	378	0.9	332	0.5	399	0.8	428	0.8	440	0.8
8. Азербайджанская ССР	278	0.9	212	0.5	235	0.5	314	0.5	361	0.5	377	0.6
9. Литовская ССР	86	0.3	103	0.4	181	0.6	228	0.7	235	0.7	246	0.7
10. Молдавская ССР	109	0.5	106	0.3	148	0.4	243	0.6	264	0.6	249	0.6
11. Латвийская ССР	102	0.5	119	0.6	165	0.7	206	0.8	201	0.8	211	0.8
12. Киргизская ССР	99	0.8	88	0.4	118	0.4	161	0.5	220	0.5	229	0.6
13. Таджикская ССР	51	0.3	67	0.3	107	0.4	178	0.4	212	0.5	214	0.4
14. Армянская ССР	93	0.7	100	0.5	109	0.4	171	0.6	181	0.5	186	0.5
15. Туркменская ССР	82	0.7	100	0.6	112	0.5	145	0.5	168	0.5	172	0.5
16. Эстонская ССР	52	0.5	58	0.4	62	0.5	81	0.6	87	0.6	95	0.6

Key: 1. Number of dermatologist-venereologists (persons)—2. USSR—3. RSFSR—4. UkSSR—5. BSSR—6. UzSSR—7. KaSSR—8. GSSR—9. AzSSR—10. LiSSR—11. MSSR—12. LaSSR—13. KiSSR—14. TaSSR—15. ArSSR—16. TuSSR—17. ESSR—18. Absolute Number—19. Per 10,000 population

Table 9: Number of Dermatology-Venerology Scientists and Pedagogical Workers in the USSR Ministry of Health System

	1980			1985		
	(18)	в том числе		всего	в том числе	
		докторов мед. наук (19)	кандидатов мед. наук (20)		докторов мед. наук	кандидатов мед. наук
(1) СССР в т. ч. учреждения подчинения Минздрава:	1078	117	694	1140	127	712
(2) РСФСР	420	39	285	427	48	284
(3) УССР	139	16	99	148	21	101
(4) БССР	40	3	23	42	4	24
(5) Узбекской ССР	61	5	35	74	4	40
(6) Казахской ССР	63	3	36	78	4	46
(7) Грузинской ССР	41	8	17	49	7	24
(8) Азербайджанской ССР	13	2	4	18	2	9
(9) Литовской ССР	7	—	7	5	—	5
(10) Молдавской ССР	11	1	7	12	1	8
(11) Латвийской ССР	5	—	4	7	—	6
(12) Киргизской ССР	8	—	6	10	—	5
(13) Таджикской ССР	9	—	6	12	1	6
(14) Армянской ССР	11	—	10	4	1	2
(15) Туркменской ССР	31	2	12	34	3	12
(16) Эстонской ССР	2	—	2	2	—	2
(17) Учреждения союзного подчинения в т. ч. учреждения АМН СССР	217	38	141	218	31	138
	6	1	3	7	1	3

(21) Таблицы подготовлены Управлением медицинской статистики и вычислительной техники Минист-
стерства здравоохранения СССР.

Key: 1. USSR, includes those at facilities under the jurisdiction of the following Ministries of Health:—2. RSFSR—3. UkSSR—4. BSSR—5. UzSSR—6. KaSSR—7. GSSR—8. AzSSR—9. LiSSR—10. MSSR—11. LaSSR—12. KiSSR—13. TaSSR—14. ArSSR—15. TuSSR—16. ESSR—17. Facilities under union jurisdiction, including facilities of the AMN USSR—18. Total—19. Doctors of Medical Sciences—20. Candidates of Medical Sciences—21. The tables were prepared by the Medical Statistics and Computer Technology Administration of the USSR Ministry of Health.

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Malignant Tumors in USSR in 1981

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[Article by N. P. Napalkov, V. M. Merabishvili, G. F. Tserkovnyy, and M. N. Preobrazhenskaya]

[Text] Among the problems of health care and medical science, the 19 August 1982 Resolution of the CPSU Central Committee and the USSR Council of Ministers, "On Additional Measures for Improving Health Protection," give special emphasis to the urgency associated with conducting research aimed at deriving reliable information on the geographic pathology of malignant tumors. A great deal of attention was devoted to these problems at the 47th session of the general meeting of the USSR Academy of Medical Sciences [1, 4]. The early 1980s are characterized by continuing growth in the incidence of recorded malignant tumors in the country.

The gross index of oncological morbidity has reached 208.0/100,000 [208.0 per 100,000 people], while the absolute number of new cases of malignant tumors has exceeded 556,000. On the whole, the dynamic trends of the morbidity indices characteristics of the 1970s have been maintained [7]. Figure 1 presents the dynamics of the growth rate of oncological morbidity in the USSR by primary tumor site. For each site, the year 1970 is the reference, or base, year for the level of dynamic progression and is taken to be 100 percent; the rate of growth or diminution in relation to that quantity is shown for every year afterward. The sharpest increases are in rectal cancer and lung cancer for both men and women, breast cancer for women, and cancer of the larynx for men. A substantial drop is noted in esophageal and stomach cancer for both men and women and in cervical cancer for woman.

Morbidity due to malignant tumors in the urban population in 1981 was considerably higher than that in the rural population (221.3 versus 184.4/100,000). The level of oncological morbidity among the urban population, however, showed virtually no change, whereas it grew by

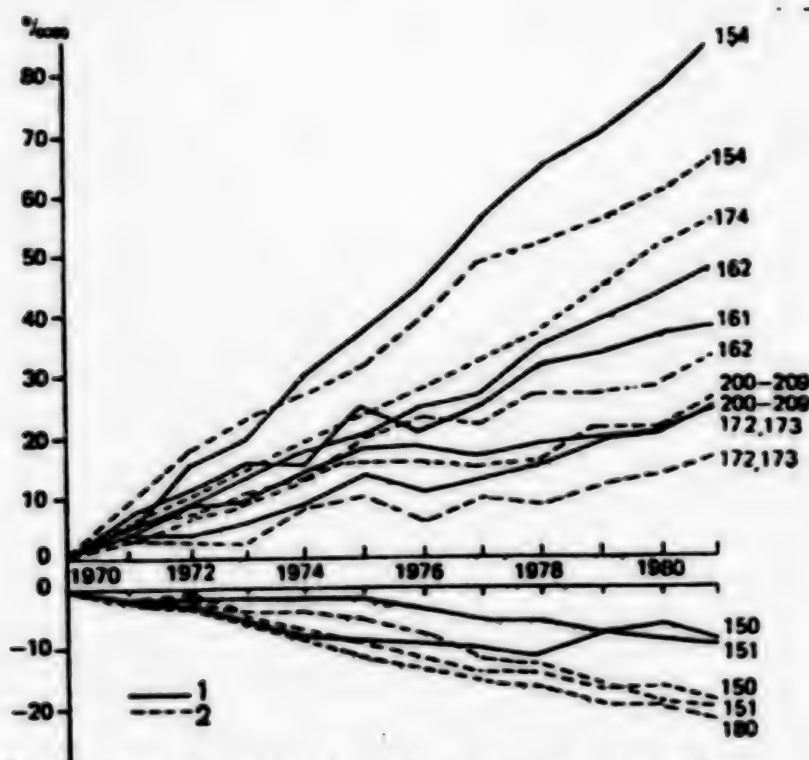


Figure 1. Dynamics of the rates of growth (or diminution) of morbidity due to malignant carcinomas among the USSR population by primary tumor site (the numbers indicate tumor site as listed in the MKB-8: 154—rectal cancer; 174—cancer of the mammary gland; 162—lung cancer; 161—cancer of the larynx; 200-209—systemic carcinomas of the lymphatic and hematopoietic tissue; 172, 173—malignant skin tumors; 150—esophageal cancer; 151—stomach cancer; 180—cervical cancer). The figures for 1970 represent 100 percent. 1—men; 2—women

3.4 percent among rural inhabitants. Several features have been identified in the similar structures of oncological morbidity among urban and rural residents. Among rural residents, for example, there is a greater incidence of cervical cancer than breast cancer, and less rectal cancer than esophageal cancer. The reverse is true among urban residents (Table 1).

The gross and standardized¹ indices of oncological morbidity compiled in 1981 for men and women were 211.8 and 227.0/100,000 for men, and 204.6 and 149.1/100,000 for women (Table 2).

The all-union trend of an increase in oncological morbidity was typical of the majority of union republics. The highest growth in morbidity due to malignant tumors is noted in the Georgian SSR, the Ukrainian SSR, the Azerbaijan SSR, and the Belorussian SSR. It should be kept in mind, however, that the level of oncological morbidity is low in the Georgian SSR and especially in the Azerbaijan SSR. Moreover, the morbidity level has been found to have dropped in several union republics—the Uzbek SSR, the Lithuanian SSR, the Latvian SSR, the Kirghiz SSR, the Tadzhik SSR, and the Turkmen SSR (Table 3).

The Scientific Research Institute of Oncology imeni Professor Petrov has completed studies of the geographic

pathology of malignant tumors confined to the period of the last USSR population census, taken in 1979. Standardized indices of morbidity due to malignant tumors by primary site for the mid-period number of diseased individuals in 1978-79 were calculated for 145 administrative territories with the exception of Moscow and Leningrad. Figures 2 and 3 are examples of geographic maps that summarize the data of the standardized indices of morbidity due to malignant tumors for men and women both (USSR population standard—1979). Histograms of the distribution of territories by levels of gross and standardized indices augment each map. Areas in which the population density was less than one person per square kilometer were not shaded. It should be noted that the territorial distribution of the malignant tumors is stable.

Let us examine the features of the morbidity among the population of the USSR and the Union republics for 1981 by primary tumor site (Tables 3, 4, 5).

Malignant tumors of the lip decreased by 2.4 percent in the structure of the oncological morbidity for the USSR population, comprising 13,600 newly recorded cases (5.1/100,000). The gross and standardized indices for morbidity due to lip cancer dropped for men and women

both. The level remained higher among the rural population than among the urban population (7.1 versus 3.9/100,000 for 1981).

For the union republics as a whole, morbidity due to lip cancer dropped; the indices grew, however, in five republics (BSSR, GSSR, LiSSR, TaSSR, and ArSSR).

Esophageal cancer decreased by 3 percent in the structure of the oncological morbidity, comprising 16,700 new cases of the disease (6.3/100,000). Esophageal cancer remained higher among rural dwellers than among urban dwellers, showing 7.6/100,000 versus 5.5/100,000. Gross and standardized indices of morbidity among men and women decreased, at 7.8 and 8.5/100,000 for men and 4.9 and 3.1/100,000 for women.

In the union republics, sharp differences continued to exist in the morbidity due to esophageal cancer: 27.6/100,000 in the TuSSR, as opposed to 1.6 and 1.9/100,000 in the MSSR and the ESSR. The morbidity grew among the populations of five republics (GSSR, AzSSR, LiSSR, MSSR, and TaSSR). The mortality rate due to esophageal cancer dropped for the USSR population in 1981 to 5.3/100,000.

Cancer of the stomach is the leading site in terms of oncological morbidity and mortality. The absolute figure for new cases of stomach cancer recorded in 1981 is 96,700, or 36.2/100,000. Stomach cancer is the leading

site in terms of oncological morbidity for both the urban and the rural population. In 1981, stomach cancer demonstrated a morbidity of 37.3/100,000 (63,300 cases) among urban dwellers and 34.2/100,000 (33,400 cases) among rural dwellers.

Gross and standardized indices dropped for both men and women, comprising in 1981 42.8 and 45.9/100,000 for men and 30.4 and 20.5/100,000 for women.

Running against the basic trend of decreasing morbidity due to stomach cancer, five union republics showed an increase (UkSSR, BSSR, KaSSR, GSSR, and ArSSR), the greatest occurring in the USSR, where it was also typical for the entire decade of the 1970s.

For the USSR population overall, the mortality rate due to stomach cancer continued to drop, consisting of 32.8/100,000 in 1981.

Rectal cancer constituted 4 percent in the structure of oncological morbidity in 1981, the growth in morbidity over the last year was determined at 3.5 percent, and the number of new cases exceeded 22,300 (8.3/100,000). Higher indices were recorded in cities (9.4/100,000), with the rural population showing 6.5/100,000. At the same time, the dynamics of the process were the same for urban and rural dwellers—a steady growth in morbidity due to rectal cancer. Morbidity increased among men as well as among women. The gross and standardized

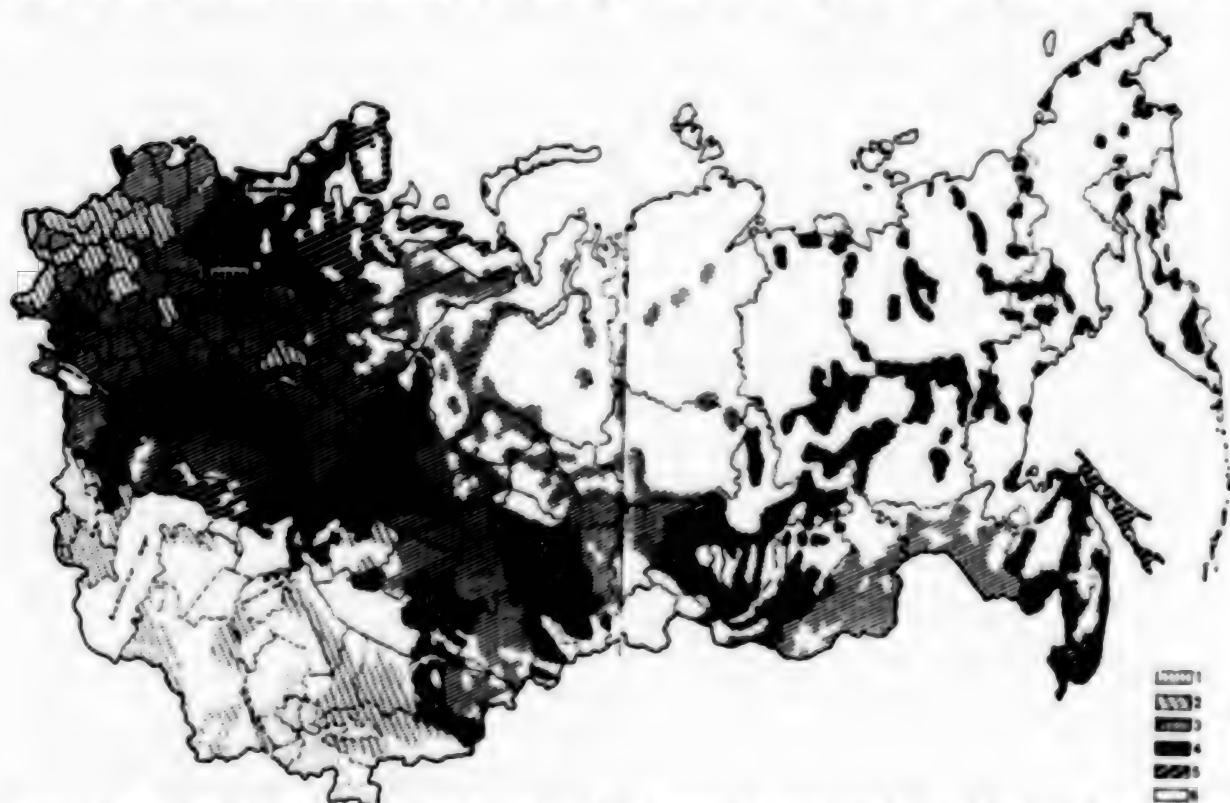


Figure 2. Morbidity due to malignant carcinomas (140-209) among the male population of the USSR by administrative territory, 1978-79 (standardized indices) 1—less than 163.9 persons per square kilometer; 2—163.9-229.7; 3—229.8-295.6; 4—295.7-361.4; 5—greater than 361.4; 6—sparsely populated areas



Figure 3. Morbidity due to malignant carcinomas (140-209) among the female population of the USSR by administrative territory, 1978-79 (standardized indices) 1—less than 114.8 persons per square kilometer; 2—114.8-147.0; 3—147.1-179.4; 4—179.5-211.8; 5—greater than 211.8; 6—sparsely populated areas

indices of morbidity were 7.4 and 8.0/100,000 for men and 9.2 and 6.4/100,000 for women. Only in four union republics was there a slight drop in morbidity (AzSSR, MSSR, KiSSR, and TuSSR). The mortality rate due to rectal cancer among the USSR population continued to increase and was 7.1/100,000 in 1981.

In 1981, morbidity due to cancer of the larynx remained at the 1980 level (3.9/100,000), as did its relative proportion (1.9 percent). Among urban dwellers, however, the morbidity dropped to 4.0/100,000.

The 1981 morbidity also remained at its 1980 level in the RSFSR (4.4/100,000) and the KaSSR (2.8/100,000). Nine union republics showed a growth in morbidity, whereas four showed a decrease, if only an extremely slight one. The age and sex distribution of the indices were unchanged. In 1975-81, morbidity due to laryngeal cancer among women was at a level of 0.5/100,000; among men, there was a slight growth, with the level at 7.8/100,000 (standardized, 7.9/100,000) in 1981. In the structure of oncological morbidity, laryngeal cancer was compared with esophageal cancer, and, based on the dynamics of the process, passed it, occupying seventh place.

The mortality rate in the USSR due to cancer of the larynx was 2.7/100,000 in 1981, maintaining a growth trend.

In 1981, lung cancer constituted 14.6 percent of all recorded cases of malignant carcinoma. Morbidity among the USSR population exceeded 30/100,000 (30.3), and the absolute figure for new cases reached 81,100. The growth in morbidity for 1981 was rather high—3.1 percent (in absolute terms, 3,181 cases). With lower levels of morbidity in rural areas of the USSR (27.6/100,000 for 1981), a sharp growth was detected among the rural population for 1981—6.6 percent, as opposed to 1.6 percent for urban dwellers.

In the structure of oncological morbidity among men, lung cancer maintains a firm grip on first place (52.6/100,000 gross, 56.2/100,000 standardized). For women, these figures were 10.8 and 7.3/100,000 for 1981.

All the figures for morbidity due to lung cancer were analogous to those of the preceding year.

The union republics, on the whole, demonstrated a growth in morbidity due to lung cancer, with the exception of the LiSSR, KiSSR, TaSSR, and TuSSR.

The mortality rate due to lung cancer rose on the whole, at 26.7/100,000 for 1981.

Skin cancer represents 11.5 percent in the oncological morbidity picture for the USSR population. All the figures grew. Morbidity increased to 23.9/100,000, and the absolute figure for new cases rose to 63,800. In connection with a change in reporting procedures associated with malignant tumors, beginning with the reports for 1982, information on morbidity due to malignant tumors is displayed separately in columns 172 and 173, i.e., malignant melanoma, which has a more severe course and outcome than do most other skin tumors, is separate. According to the data from foreign cancer records, malignant melanomas fluctuate between 5 and 50 percent of all malignant skin tumors, the second figure indicating more than anything else that, for this territory, reporting carcinomas in column 173 of the MKB is poorly suited. Selected studies for certain areas of the USSR have shown that malignant melanoma averages around 8 percent of all malignant skin tumors and fluctuates between 5 and 12 percent.

Morbidity due to malignant skin tumors rose, on the whole, last year among the union republics, with the exception of three republics (UzSSR, TaSSR, and TuSSR).

The mortality rate due to malignant skin tumors continued to rise and constituted 1.4/100,000 in 1981.

Morbidity due to cancer of the mammary gland continued to grow and was 15.6/100,000 among the entire population in 1981 and 29.0/100,000 among the female population. There were 41,600 new cases in the USSR that year, 317 of which were in men. Morbidity is much lower in rural areas than in urban areas (10.2 versus 18.6/100,000), and cancer of the mammary gland is encountered less often in rural areas than is cervical cancer. Although the incidence of breast cancer generally increased in the union republics in 1981, it decreased in UzSSR, KaSSR, MSSR, KiSSR, and ESSR. The mortality rate due to breast cancer rose among the USSR population in 1981 to 7.8/100,000.

The incidence as well as the relative proportion of cervical cancer continued to drop. In 1981, the figure for the number of recorded cases in the USSR was less than 30,000 (29,247) for the first time ever. Cervical cancer represented 5.3 percent of all malignant carcinomas. Last year, it dropped from 11.4 to 10.7/100,000 among urban dwellers and was unchanged among urban dwellers at 11.3/100,000.

In terms of the female population, both gross and standardized morbidity due to cervical cancer decreased over 1981, from 21.2 to 20.5/100,000 (gross) and

from 16.2 to 15.6/100,000 (standardized). Only in four union republics was there a growth of morbidity (BSSR, KaSSR, GSSR, and MSSR). The mortality rate due to cervical cancer in the USSR population continued to drop and was 4.5/100,000 in 1981.

The prevalence of malignant tumors of lymphatic and hematopoietic tissue continued to increase. In 1981, the number of cases of systemic malignant carcinoma was 24,700, or 9.2/100,000, which was 3.4 percent greater than the previous year. The growth of this group of carcinomas is typical for both urban and rural populations, with higher morbidity among urban dwellers (9.9 versus 8.0/100,000), but faster growing morbidity among the rural dwellers. Over 1981 alone, the incidence of malignant carcinomas of lymphatic and hematopoietic tissue among rural dwellers grew by 6.7 percent. Gross and standardized morbidity increased among both men and women and was 10.3 and 10.6/100,000 for men in 1981 and 8.3 and 7.0/100,000 for women. In the union republics, the incidence decreased only in the UzSSR, LiSSR, and LaSSR.

The mortality rate due to malignant carcinoma of lymphatic and hematopoietic tissue rose among the USSR population in 1981 to 7.6/100,000.

The number of individuals in the USSR with malignant tumors in 1981 was 2,309,838, or 860.3/100,000 (Tables 6 and 7). The increase in the number of individuals under dispensary care at oncological institutions is a result of the growth of the network of oncological institutions, a rise in morbidity due to malignant tumors, and, to a great extent, advances in clinical oncology [2]. With the exception of esophageal cancer, which remained at the level of the previous year, and lip cancer, whose prevalence decreased slightly against the background of a substantial drop in morbidity due to lip cancer in the USSR population, morbidity levels grew. The prevalence of cancer grew in all union republics, except in the TuSSR. The distribution of prevalence remained the same in the union republics. The highest was recorded in the ESSR (1317.3/100,000), the lowest in the UzSSR (207.4/100,000). The age/sex composition of the population of the union republics has a substantial effect on gross prevalence.

On the whole, one-year mortality—i.e., the ratio of number of oncology patients who live less than one year to the number of patients recorded in a given year who have an established diagnosis of malignant carcinoma for the first time in their lives—decreased in the USSR over the last year. One-year mortality for all malignant carcinomas in 1981 was 34.6 percent (Table 8). A decrease in this indicator was noted for the leading forms of malignant tumors—stomach cancer, lung cancer, cancer of the mammary gland, and systemic carcinomas of the lymphatic and hematopoietic tissue.

The relative proportion of posthumously recorded malignant carcinoma patients, which was 1.95 percent overall in the USSR in 1981 (Table 9), continued to decrease in most of the union republics.

Table 10 presents data on the network of oncological institutions and the number of beds in the union republics.

The mortality rate due to malignant carcinomas among the USSR population increased over a year by 1.5 percent and was 142.1/100,000 in 1981 (Table 11).

In 1981, more than 380,000 individuals completed special therapy in the USSR (Tables 12 and 13). A low level of use of comprehensive therapy (less than 10 percent) has been noted in the TaSSR, ArSSR, and TuSSR. Because of the broad interpretation given by physicians to the term "special therapy"—an interpretation that makes it possible, on the one hand, to begin palliative chemotherapy or palliative radiation treatment in very advanced stages and to place this group of patients into the category of having completed special therapy, but which, on the other hand, prevents patients identified in early stages of disease from undergoing active treatment (combined, comprehensive, or any other form of treatment aimed at the complete cure of the patient from the tumors) and limits them to special therapy of a palliative nature—the USSR Ministry of Health has adopted a

decision from the 1982 report to assemble a digest of data on the conduct not of "special" therapy, but of "radical" therapy (except for systemic carcinoma).

In order to raise the reliability of the record-keeping and the quality of control of summary data on oncological patients, reports (report insert No. 6 to form No. 1) have, since 1982, included other highly informative indices, such as morphological confirmation of diagnosis (histology and/or cytology) and the reasons for not performing radical therapy, whether because of the patient's refusal to undergo treatment or because of general contraindications to radical or special therapy. Forms of primary medical documentation involve obtaining data not only on patients identified as oncological, but also in cases in which they have primary multiple tumors, which creates grounds for studying them.

The broad methodological developments that have come about in recent years in improving recording malignant carcinomas have found their way into the instructional-procedural materials published by the USSR Ministry of Health for mandatory use in the treatment-and-prevention facilities of the country.

Thus, an analysis of the basic indices in the battle against cancer indicates the persistent nature of the trends outlined here of the dynamics of oncological morbidity and mortality. Progressive trends have been identified in the tactics of treatment and in the process of assembling contingents of oncology patients.¹

Table 1. Distribution of Malignant Carcinomas in the USSR by Tumor Site

ТАБЛИЦА 1. Распределение злокачественных новообразований по локализации в СССР по годам регистрации							распределение злокачественных новообразований по локализации в СССР по годам регистрации						
(3) По годам регистрации	(2) Злокачественные новообразования по локализации						(1) Злокачественные новообразования по локализации						
	в %						в %						
	(4) 1970	(5) 1980	(6) 1981	(7) 1970	(8) 1980	(9) 1981	(10) 1970	(11) 1980	(12) 1981	(13) 1970	(14) 1980	(15) 1981	
(16) Все органы													
1970	420 178	6000	14 702	17 004	122 097	11 680	6000	30 200	42 705	24 300	33 960	56 321	17 629
(16) 1980	177.2	1.8	6.1	7.3	42.3	4.8	3.8	20.8	20.1	12.1	14.6	26.7	7.3
1981	190	1.3	3.4	4.1	22.9	2.7	1.8	11.7	11.2	5.7	7.9	12.4	4.2
(17) Мужчины													
1970	504 171	6200	14 227	17 002	97 700	10 107	6200	27 091	41 724	24 000	30 147	44 000	35 621
(17) 1980	185.2	3.1	5.4	6.4	26.9	6.0	3.9	20.4	22.2	13.1	11.4	22.5	6.9
1981	190	1.8	3.6	3.1	18.0	3.9	1.9	14.3	11.2	7.4	5.5	26.1	4.4
(18) Женщины													
1970	336 001	6000	13 500	16 747	66 600	33 330	6000	31 072	43 600	41 649	29 247	146 000	24 675
(18) 1980	188.0	2.3	5.1	5.8	26.3	6.3	2.9	20.3	22.9	13.6	10.9	24.9	8.2
1981	190	1.8	3.4	3.5	17.4	4.0	1.9	14.8	11.5	7.5	5.2	25.4	4.4
(19) Городское население													
1970	350 007	5700	13 700	16 718	60 717	7000	5700	22 316	30 420	17 004	19 307	40 000	10 000
(19) 1980	191.4	2.0	5.0	6.7	44.2	3.6	2.2	22.5	22.2	12.7	14.1	44.2	7.9
1981	190	1.3	3.6	3.5	22.1	2.9	1.7	12.3	11.8	6.6	7.6	22.1	4.3
(20) Сельское население													
1970	207 000	6000	7100	6074	64 380	10 117	6000	32 316	42 000	26 300	18 617	99 726	16 180
(20) 1980	181.1	3.2	4.3	5.5	26.9	9.1	4.1	21.4	25.3	18.2	11.4	68.0	8.7
1981	190	1.5	1.9	3.3	17.5	4.1	1.9	14.2	11.4	6.3	5.2	27.1	4.4
(21) Мужчины													
1970	276 718	6000	6616	6000	62 370	13 000	6000	34 100	43 004	31 000	18 229	102 718	16 004
(21) 1980	201.3	3.5	3.9	3.5	27.3	9.4	4.8	21.9	25.4	18.6	10.7	61.1	9.9
1981	190	1.8	1.8	2.5	18.8	4.2	1.8	14.4	11.5	6.4	4.9	27.6	4.3
(22) Женщины													
1970	147 125	1000	7000	6016	41 000	4000	1000	18 072	18 377	7000	14 373	35 400	6000
(22) 1980	188.7	1.7	7.8	6.1	29.9	3.8	2.3	17.2	17.4	6.7	13.8	32.6	6.6
1981	190	1.3	4.8	6.1	25.1	2.4	1.8	16.8	10.9	4.2	8.7	31.2	4.3
(23) Мужчины													
1970	176 191	5700	7070	7000	32 420	6040	5700	25 076	19 002	9000	11 074	40 257	7400
(23) 1980	179.4	2.8	7.3	7.8	28.8	6.1	2.5	22.9	19.9	9.8	11.3	43.8	7.5
1981	190	1.8	4.0	4.4	18.9	3.4	2.0	14.5	11.2	5.3	6.3	24.9	4.2
(24) Женщины													
1970	100 319	2000	6070	7400	32 420	6040	2000	26 070	20 775	9000	11 008	43 000	7200
(24) 1980	184.4	2.9	7.1	7.8	34.2	6.5	2.7	27.6	21.2	10.2	11.3	44.1	8.0
1981	190	1.8	3.9	4.1	18.5	3.5	2.0	15.9	11.3	5.3	6.1	24.0	4.3

Key:—1. Number of patients with first-time diagnosis of malignant carcinoma followed up by oncological facility—2. Year recorded and index—3. All malignant carcinomas (sections 140-209)—4. Throat and mouth (141-149)—5. Lips (140)—6. Esophagus (150)—7. Stomach (151)—8. Rectum (154)—9. Larynx (161)—10. Trachea, bronchi, lungs (162)—11. Skin (172, 173)—12. Mammary gland (174)—13. Cervix (180)—14. Other organs (152-160, 163, 171, 181-199)—15. Lymphatic and hematopoietic tissue (200-209)—16. 1970, absolute number per 100,000 people, in percent—17. 1980, absolute number per 100,000 people, in percent—18. 1981, absolute number per 100,000 people, in percent—19. 1970, absolute number per 100,000, in percent—20. 1980, absolute number per 100,000, in percent—21. 1981, absolute number per 100,000, in percent—22. 1970, absolute number per 100,000, in percent—23. 1980, absolute number per 100,000, in percent—24. 1981, absolute number per 100,000, in percent—25. Entire population—26. Urban population—27. Rural population

Table 2. Age-Sex Indices of Morbidity Due to Malignant Carcinomas in the USSR Population in 1981

(4) Заболевание	(5) Мужчины 1000 ч.	(1) Источники данных: данные государственного статистического комитета СССР, опубликованные в «Вестнике государственной статистики» за 1981 г.																	
		(2) Возраст								(3) Пол									
		(6) 0-9	10-19	20-29	30-39	40-49	(7) 50-59	(8) Пол			(9) 0-9	10-19	20-29	30-39	40-49	(10) 50-59	(11) Пол		
								муж.	жен.	общ.							муж.	жен.	общ.
(12) Все злокачественные новообразования	140-149	11,9	22,8	206,5	608,3	1197,1	1403,9	211,8	227,8	13,3	79,3	204,1	494,8	682,7	702,3	244,6	148,1		
в том числе:																			
(13) полости рта и глотки	141-149	0,3	1,8	8,8	18,9	20,1	20,3	4,9	4,9	0,2	1,1	2,1	8,8	8,8	9,0	9,0	1,4		
(14) губы	140	0,1	2,8	11,9	24,8	42,9	22,3	8,8	8,8	0,2	0,9	2,9	7,9	11,9	2,1	1,3			
(15) глотки	140	0,0	0,7	8,8	21,8	48,9	22,8	7,8	8,8	0,2	0,2	2,1	7,9	17,1	20,8	4,9	8,1		
(16) пищевод	141	0,4	9,8	43,8	119,8	248,3	211,8	48,8	48,8	0,3	6,1	19,3	47,1	108,3	148,7	28,4	28,3		
(17) желудок	134	0,2	1,7	8,8	17,8	44,8	22,7	7,4	8,8	0,2	2,3	8,8	17,8	28,3	28,4	8,8	8,4		
(18) тонкий кишечник	141	0,0	1,8	11,8	20,8	29,8	27,1	7,8	7,8	0,0	0,2	8,4	1,1	1,8	8,8	8,8	8,8		
(19) толстый кишечник	142	0,3	6,1	48,4	178,8	204,8	208,8	28,8	28,8	0,3	1,9	8,1	19,8	41,1	47,3	18,3	7,3		
(20) печень, желчный пузырь, поджелудочная железа	172, 179	0,7	8,8	18,3	48,7	108,8	103,8	20,8	21,8	0,9	7,8	21,8	48,4	121,8	27,3	18,8			
(21) легкие	174	0,0	0,0	0,2	0,7	1,3	2,8	0,2	0,2	0,0	0,0	28,4	28,8	79,8	28,8	28,8	28,8		
(22) мочевой пузырь	140									0,8	18,8	28,4	28,8	79,7	28,8	28,3	15,8		
(23) рак шейки матки и цервикального канала	200-209	4,7	6,1	16,4	28,8	28,8	48,8	18,8	18,8	2,7	6,8	7,8	12,8	28,7	17,7	8,3	7,8		

Key:—1. Number of patients with first-time diagnosis of malignant carcinomas followed up by oncological facility, per 100,000 people of corresponding sex and age (in years)—2. Men—3. Women—4. Site—5. MSKB-8, 1965—6. Under 30 years of age—7. 70 or older—8. Total—9. Normal indices—10. Standardized indices—11. Under 30 years of age—12. 70 or older—13. Total—14. Normal indices—15. Standardized indices—16. All malignant carcinomas—17. Mouth and throat—18. Lips—19. Esophagus—20. Stomach—21. Rectum—22. Larynx—23. Trachea, bronchi, lung—24. Skin—25. Mammary gland—26. Cervix—27. Lymphatic and hematopoietic tissue

Table 3. Morbidity Due to Malignant Carcinomas in USSR Population and in the Union Republics

(1) Cancer type	(2) Число больных с впервые установленным диагнозом злокачественных новообразований, выявленных онкологическими учреждениями на 100 000 человек			
	СССР	РСФСР	УзССР	КаССР
(3) Злокачественные новообразования, всего (162-209)			(4) Злокачественные новообразования (162)	(5) Злокачественные новообразования (173)
Всего	205.3	200.0	5.4	5.1
УзССР	201.3	203.3	6.0	5.7
КаССР	202.6	204.5	7.3	6.8
ГССР	195.4	195.6	3.4	4.0
ТССР	73.3	71.9	1.2	1.1
КыССР	103.4	100.8	4.7	4.9
ТуркССР	105.7	123.2	3.2	2.5
АрССР	94.8	97.3	1.8	1.4
АзССР	200.9	205.1	4.3	4.4
ЛССР	149.8	151.4	5.1	5.3
МССР	202.7	200.6	3.5	3.3
ЛитССР	115.1	111.7	3.0	2.8
ТалССР	71.6	67.7	1.3	1.4
ТуркменССР	105.1	127.9	2.3	2.3
ТаджССР	100.7	105.3	1.3	1.3
Вьетнам	271.4	273.5	2.9	1.7
(6) Злокачественные новообразования, кроме (168)			(7) Злокачественные новообразования, кроме (164)	(8) Злокачественные новообразования, кроме (161)
Всего	6.4	6.3	30.9	30.3
УзССР	6.0	5.7	48.5	44.4
КаССР	2.1	2.6	36.5	36.0
ГССР	2.3	2.6	46.2	46.5
ТССР	11.9	11.8	10.6	10.3
КыССР	20.3	19.5	26.7	26.9
ТуркССР	1.5	2.0	11.0	11.7
АрССР	6.9	7.3	16.7	16.0
АзССР	2.1	2.8	20.4	27.4
ЛССР	1.3	1.6	17.6	16.1
МССР	2.8	2.1	26.0	22.8
ЛитССР	6.8	6.5	21.5	20.3
ТалССР	5.9	6.0	11.2	11.0
ТуркменССР	2.7	2.7	17.1	17.3
ТаджССР	20.3	27.6	14.8	14.8
Вьетнам	2.3	1.9	20.7	20.3
(9) Злокачественные новообразования, кроме (164)			(10) Злокачественные новообразования, кроме (161)	(11) Злокачественные новообразования, кроме (161)
Всего	6.5	6.3	2.9	2.9
УзССР	9.0	9.3	4.4	4.4
КаССР	9.0	10.5	4.0	4.5
ГССР	4.7	6.9	3.6	3.7
ТССР	1.6	1.9	1.0	1.1
КыССР	4.6	4.8	2.8	2.8
ТуркССР	2.9	4.1	3.5	4.3
АрССР	3.0	2.7	3.1	3.3
АзССР	12.3	12.6	4.6	5.3
ЛССР	6.4	6.3	3.6	3.5
МССР	8.5	10.0	4.3	4.3
ЛитССР	3.4	3.1	1.6	1.3
ТалССР	1.6	1.9	1.3	1.3
ТуркменССР	2.9	4.4	3.9	4.0
ТаджССР	2.0	1.9	2.3	1.9
Вьетнам	11.1	12.6	4.3	4.4

Key:—1. Union republics—2. Number of patients with first-time diagnosis of malignant carcinoma followed up by oncological facility (per 100,000)—3. Trachea, bronchi, lung (162)—4. Skin (172, 173)—5. Entire USSR, RSFSR; UkSSR; BSSR; UzSSR; KaSSR; GSSR; AzSSR; LiSSR; MSSR; LaSSR; KiSSR; TaSSR; ArSSR; TuSSR; ESSR—6. Mammary gland (174)—7. Cervix (180)—8. Lymphatic and hematopoietic tissue (200-209)

Table 3 (continued)

(1) Common republics	(2) Number of patients with first diagnosis of malignant carcinoma followed up by oncological facility (per 100,000)			
	1969	1970	1971	1972
(3) Злокачественные новообразования трахеи, бронхов и легкого (162)				
(4) Злокачественные новообразования кожи (172, 173)				
В целом по СССР	20.4	20.3	20.3	20.0
РСФСР	24.2	24.5	25.1	25.0
УССР	25.7	26.6	26.0	26.1
БССР	21.9	24.5	21.7	24.6
Узбекистан ССР	6.4	6.7	8.1	7.9
Казахстан ССР	21.7	22.1	18.0	18.7
Грузинская ССР	14.9	15.4	13.0	14.0
Азербайджанская ССР	11.3	12.0	8.5	8.3
Литовская ССР	26.7	23.0	22.7	24.1
Молдавская ССР	20.0	20.0	20.3	20.9
Латвийская ССР	31.7	26.0	20.3	21.5
Киргизская ССР	12.3	12.0	10.4	17.6
Таджикская ССР	8.0	8.3	12.7	12.7
Армянская ССР	13.1	13.0	11.0	12.4
Туркменская ССР	8.0	7.9	8.9	6.6
Эстонская ССР	20.3	20.1	20.5	21.4
(5) Злокачественные новообразования молочной железы (174)				
(6) Злокачественные новообразования шейки матки (180)				
В целом по СССР	13.1	13.0	11.4	10.9
РСФСР	16.6	17.3	12.6	12.1
УССР	18.4	19.3	12.7	12.3
БССР	14.0	14.3	9.9	10.3
Узбекистан ССР	4.5	4.3	4.0	3.7
Казахстан ССР	9.4	9.3	9.1	9.7
Грузинская ССР	14.0	10.1	6.0	7.7
Азербайджанская ССР	7.0	7.0	4.6	4.1
Литовская ССР	19.7	19.0	11.3	10.0
Молдавская ССР	12.0	12.4	11.0	11.7
Латвийская ССР	22.0	20.0	11.0	11.0
Киргизская ССР	7.3	6.6	7.3	4.7
Таджикская ССР	4.1	4.1	3.5	2.8
Армянская ССР	12.4	12.0	7.0	7.1
Туркменская ССР	3.3	4.0	4.0	4.6
Эстонская ССР	20.4	22.0	11.4	8.7
(7) Злокачественные новообразования лимфатической и кроветворной тканей (200-209)				
В целом по СССР	8.9	9.3		
РСФСР	9.3	9.5		
УССР	11.0	12.0		
БССР	10.0	10.0		
Узбекистан ССР	3.3	3.3		
Казахстан ССР	6.0	6.0		
Грузинская ССР	6.0	7.1		
Азербайджанская ССР	4.3	6.3		
Литовская ССР	15.7	13.0		
Молдавская ССР	9.0	10.7		
Латвийская ССР	15.3	12.0		
Киргизская ССР	6.0	6.0		
Таджикская ССР	3.0	3.0		
Армянская ССР	10.7	11.0		
Туркменская ССР	6.0	6.0		
Эстонская ССР	15.0	16.3		

Key:—1. Union republics—2. Number of patients with first diagnosis of malignant carcinoma followed up by oncological facility (per 100,000)—3. Trachea, bronchi, lung (162)—4. Skin (172, 173)—5. Entire USSR; RSFSR; UkSSR; BSSR; UzSSR; KaSSR; GSSR; AzSSR; LiSSR; MSSR; LaSSR; KiSSR; TaSSR; ArSSR; TuSSR; ESSR—6. Mammary gland (174)—7. Cervix (180)—8. Lymphatic and hematopoietic tissue (200-209)

Table 4. Age-sex Indices of Morbidity Due to Malignant Carcinomas in the USSR Population in 1961

(1) Число выходов с экранов в кино установившихся дореволюционных кинотеатров, учреждений кинематографии, по 1000 выходов в день в кинотеатры (в тысячах)																	
(4) Среднее число выходов	(3) Москва							(5) Ленинград									
	(6) в год	(7) в I полугодии	(8) в II полугодии	(9) в I полугодии	(10) в II полугодии	(11) в I полугодии	(12) в II полугодии	(13) в I полугодии	(14) в II полугодии	(15) в I полугодии	(16) в II полугодии	(17) в I полугодии	(18) в II полугодии				
														(19) в I полугодии	(20) в II полугодии	(21) в I полугодии	(22) в II полугодии
(19) В кино по СССР	11,9	52,0	204,5	600,3	1197,1	1423,9	211,8	227,0	12,3	79,3	204,1	604,6	655,7	702,2	394,6	149,1	
(16) РСФСР	12,4	52,2	218,7	646,1	1279,5	1620,3	227,1	240,8	14,7	82,8	209,5	609,7	662,5	706,9	320,4	125,8	
(17) Украинская ССР	14,6	61,4	220,9	617,5	1310,0	1357,4	258,7	220,9	16,0	85,2	222,5	629,6	682,0	641,1	226,3	152,7	
(18) Белорусская ССР	12,3	45,9	186,8	522,4	1052,9	1198,9	203,3	198,4	12,7	72,5	182,0	370,3	540,1	573,4	188,9	122,8	
(14) Узбекская ССР	7,8	32,2	117,1	204,4	398,6	726,8	72,5	124,1	6,4	30,9	122,2	194,9	422,7	289,0	71,3	32,5	
(20) Казахская ССР	9,8	58,5	217,9	684,7	1210,1	1234,0	187,8	246,1	10,5	70,0	200,4	622,3	770,9	791,1	184,2	181,8	
(21) Грузинская ССР	11,2	40,6	108,6	292,6	624,0	702,1	118,7	119,2	11,8	68,2	169,9	267,6	379,5	226,9	127,1	99,8	
(22) Азербайджанская ССР	8,8	56,0	187,7	389,8	667,9	919,9	105,4	188,6	8,7	78,1	187,7	288,9	680,1	267,3	60,7	102,3	
(24) Латвийская ССР	10,9	51,8	207,0	534,3	1170,4	1707,4	260,9	220,7	12,6	77,9	212,2	620,1	628,8	919,9	221,8	180,0	
(24) Молдавская ССР	12,2	62,2	181,0	468,4	829,4	872,4	184,9	142,2	12,1	79,2	204,0	268,9	510,6	608,4	148,4	127,2	
(26) Литовская ССР	11,2	39,0	181,9	574,4	1088,2	1461,8	247,7	210,6	12,2	60,6	221,9	628,5	674,7	771,2	251,2	156,5	
(25) Киргизская ССР	8,7	0,0	174,5	479,4	1009,9	954,5	119,2	179,4	8,2	65,3	172,0	204,8	627,1	521,2	107,5	117,4	
(27) Таджикская ССР	5,2	23,3	118,0	218,2	600,0	612,2	68,1	114,8	6,9	48,9	108,0	200,0	427,9	402,1	66,4	90,9	
(28) Армянская ССР	12,8	62,0	173,9	427,2	976,5	925,4	128,6	175,9	14,4	81,8	207,8	375,4	588,8	481,4	124,6	122,2	
(29) Туркменская ССР	9,2	37,9	180,6	422,7	998,3	1216,7	106,0	190,2	8,8	68,2	179,9	251,5	627,9	668,9	180,7	126,2	
(30) Ойротская ССР	14,6	41,0	175,2	379,4	1401,7	1865,6	279,2	252,7	14,7	72,7	202,4	481,4	758,9	658,2	264,5	169,0	

Key:—1. Number of patients with first-time diagnosis of malignant carcinomas followed up by oncological facility, per 100,000 people of corresponding sex and age (in years)—2. Men—3. Women—4. Site—5. Under 30 years of age—6. 70 or older—7. Total—8. Normal indices—9. Standardized indices—10. Under 30 years of age—11. 70 or older—12. Total—13. Normal indices—14. Standardized indices—15. Entire USSR—16. RSFSR—17. Ukrainian SSR—18. Belorussian SSR—19. Uzbek SSR—20. Kazakh SSR—21. Georgian SSR—22. Azerbaijan—23. Lithuanian SSR—24. Moldavian SSR—25. Latvian SSR—26. Kirghiz SSR—27. Tadzhik SSR—28. Armenian SSR—29. Turkmen SSR—30. Estonian SSR

Table 5. Morbidity Due to Malignant Carcinomas among the Oblast, Kray, and ASSR Populations by Economic Rayon (per 100,000)

(2) Экономические районы, республика, край и области	(1) Число больных с диагнозом злокачественных новообразований на 100 000 населения в среднем за год							
	(3) Всего 1980-88		(4) Губы 198		(5) Печень 198		(6) Желудок 198	
	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.
1	2	3	4	5	6	7	8	9
(7) СССР	205.2	208.0	5.4	5.1	6.4	6.3	36.9	36.2
(8) РСФСР	231.2	233.5	6.0	5.7	5.8	5.7	45.5	44.4
(9) Северо-Западный район								
(10) Архангельская обл.	224.2	225.6	5.0	4.6	10.8	11.0	48.4	49.2
(11) Вологодская обл.	234.2	242.3	5.2	5.5	8.5	7.3	62.4	62.3
(12) г. Ленинград	292.9	299.2	1.5	1.6	10.0	9.1	54.4	52.5
(13) Ленинградская обл.	231.8	228.1	4.5	3.8	8.2	6.2	55.1	50.5
(14) Мурманская обл.	146.7	142.7	1.8	1.4	4.3	4.9	26.9	25.9
(15) Новгородская обл.	292.9	301.9	7.8	7.3	7.2	8.4	78.3	72.1
(16) Псковская обл.	260.8	265.2	4.6	7.4	3.0	3.3	70.6	67.6
(17) Карельская АССР	220.3	212.8	2.7	3.5	12.2	10.8	50.9	45.8
(18) Коми АССР	131.1	140.3	3.2	3.3	5.1	6.0	22.9	21.4
(19) Центральный район								
(20) Брянская обл.	228.5	242.8	7.5	7.2	4.5	4.0	57.8	57.2
(21) Владимирская обл.	242.6	251.5	5.0	4.9	4.8	5.1	64.3	63.4
(22) Ивановская обл.	296.7	303.8	6.9	7.3	8.6	8.4	68.1	68.3
(23) Калининская обл.	284.9	282.5	4.5	3.9	7.4	7.2	78.2	79.5
(24) Калужская обл.	222.8	224.0	4.2	4.0	3.7	4.5	62.5	68.6
(25) Костромская обл.	267.7	250.8	6.5	5.4	7.4	6.7	69.1	62.9
(26) г. Москва	290.7	292.3	1.5	1.3	7.4	6.9	56.6	55.1
(27) Московская обл.	256.5	262.1	3.0	3.2	8.2	7.4	59.1	58.5
(28) Орловская обл.	214.2	224.3	5.3	6.5	2.9	3.1	52.4	50.8
(29) Рязанская обл.	250.3	252.9	7.8	5.0	6.2	4.3	63.0	62.0
(30) Смоленская обл.	250.2	258.8	5.3	4.7	3.8	6.3	78.9	74.4
(31) Тульская обл.	285.1	279.7	5.6	5.7	5.3	5.0	68.7	62.5
(32) Ярославская обл.	277.5	265.3	3.6	3.8	7.5	7.9	70.1	63.4
(33) Волго-Вятский район								
(34) г. Горький	258.6	300.1	4.2	4.7	6.6	6.4	63.9	61.8
(35) Горьковская обл.	284.4	286.1	7.6	7.5	6.2	6.4	65.3	63.9
(36) Кировская обл.	217.3	225.1	7.6	9.2	3.1	4.2	39.3	39.3
(37) Марийская АССР	139.0	148.8	5.5	6.4	3.4	2.9	30.2	30.8
(38) Мордовская АССР	196.1	197.1	8.5	7.4	3.9	2.8	47.2	44.7
(39) Чувашская АССР	135.8	136.4	8.7	5.8	4.1	3.1	27.5	26.7
(40) Центр-Черноморский район								
(41) Белгородская обл.	242.7	247.8	7.0	8.8	3.4	3.0	45.9	45.0
(42) Воронежская обл.	247.8	245.6	7.4	8.7	4.2	3.3	43.7	40.5
(43) Курская обл.	301.9	304.4	8.6	6.9	3.4	2.8	49.3	45.0
(44) Липецкая обл.	241.0	242.6	5.6	7.2	2.7	4.7	58.1	56.8
(45) Тамбовская обл.	238.5	241.2	8.6	8.6	5.8	5.2	54.8	53.0
(46) Поволжский район								
(47) Астраханская обл.	274.5	281.2	10.1	6.6	16.5	17.0	47.1	45.4
(48) Волгоградская обл.	280.7	281.4	9.3	9.0	5.5	5.4	40.5	41.5
(49) г. Куйбышев	294.8	288.4	17.4	15.6	4.5	6.1	55.8	47.9
(50) Куйбышевская обл.	252.9	253.9	4.6	5.2	4.7	5.8	47.8	43.4
(51) Пензенская обл.	236.6	241.5	9.5	10.9	3.7	4.1	50.8	50.0
(52) Саратовская обл.	281.9	283.5	10.9	9.9	6.6	6.9	49.9	47.1
(53) Ульяновская обл.	216.5	218.8	8.9	10.3	5.5	5.0	45.9	43.5
(54) Башкирская АССР	174.8	168.9	7.8	6.4	10.9	10.1	34.1	32.2
(55) Калмыцкая АССР	147.9	152.4	6.0	6.3	9.3	10.9	26.0	26.1
(56) Татарская АССР	184.2	186.6	5.3	6.4	11.3	11.0	38.5	38.6
(57) Северо-Кавказский район								
(58) Краснодарский край	276.8	273.0	9.5	8.4	3.1	3.1	35.8	36.2
(59) Ставропольский край	256.6	257.5	9.1	8.9	3.7	3.0	36.1	35.7
(60) Ростовская обл.	262.8	257.7	7.5	7.7	3.3	2.6	35.8	33.0
(61) Дагестанская АССР	93.5	102.1	4.0	3.8	2.2	3.2	10.8	12.4
(62) Кабардино-Балкар. АССР	180.1	203.6	3.5	3.9	3.4	3.8	27.0	23.6
(63) Северо-Осетинская АССР	194.5	200.7	3.8	4.5	4.2	3.3	25.2	26.4
(64) Чечено-Ингушская АССР	181.2	175.6	3.9	6.3	4.2	4.0	17.4	17.8
(65) Уральский район								
(66) Курганская обл.	250.5	250.8	10.1	10.0	3.6	3.5	43.9	44.4
(67) Оренбургская обл.	216.5	229.0	10.4	10.5	7.3	8.3	32.2	32.4
(68) Пермская обл.	194.9	193.6	3.9	3.5	5.2	4.5	35.2	33.9
(69) г. Свердловск	227.1	233.8	3.0	2.6	4.5	4.3	37.5	38.9

Key:—1. Number of patients with first-time diagnosis of malignant carcinoma followed up by oncological facility—
2. Economic rayons, republics, krays, and oblasts—3. Total, 140-209—4. Lips, 140—5. Esophagus, 150—6. Stomach,
151—7. USSR—8. RSFSR—9. Severo-Zapadnyy Rayon—10. Arkhangelsk Oblast—11. Vologoda Oblast—12. City of
Leningrad—13. Leningrad Oblast—14. Murmansk Oblast—15. Novgorod Oblast—16. Pskov Oblast—17. Karelian
ASSR—18. Komi ASSR—19. Tsentralnyy Rayon—20. Bryansk Oblast—21. Vladimir Oblast—22. Ivanovo Oblast—
23. Kalinin Oblast—24. Kaluga Oblast—25. Kostroma Oblast—26. City of Moscow—27. Moscow Oblast—28. Orel
Oblast—29. Ryazan Oblast—30. Smolensk Oblast—31. Tula Oblast—32. Yaroslavl Oblast—33. Volgo-Vyatskiy
Rayon—34. City of Gorky—35. Gorkiy Oblast—36. Kirov Oblast—37. Mari ASSR—38. Mordovian ASSR—39.
Chuvash ASSR—40. Tsentralno-Chernozemnyy Rayon—41. Belgorod Oblast—42. Voronezh Oblast—43. Kursk
Oblast—44. Liptesk Oblast—45. Tambov Oblast—46. Povolzhskiy Rayon—47. Astrakhan Oblast—48. Volgograd
Oblast—49. City of Kuybyshev—50. Kuybyshev Oblast—51. Penza Oblast—52. Saratov Oblast—53. Ulyanovsk
Oblast—54. Bashkir ASSR—55. Kalmyk ASSR—56. Tatar ASSR—57. Severo-Kavkaskiy Rayon—58. Krasnodar
Kray—59. Stavropol Kray—60. Rostov Oblast—61. Dagestan ASSR—62. Kabardino-Balkar ASSR—63. North
Osetian ASSR—64. Chechen-Ingush ASSR—65. Uralskiy Rayon—66. Kurgan Oblast—67. Orenburg Oblast—68.
Perm Oblast—69. City of Sverdlovsk

Table 5 (continued)

1	2	3	4	5	6	7	8	9
(1) Свердловская обл.	246.8	248.3	6.3	5.0	4.0	4.2	43.2	41.4
(2) г. Челябинск	247.0	257.1	5.0	4.9	5.6	3.3	41.1	37.9
(3) Челябинская обл.	242.7	247.5	7.1	7.1	7.6	6.1	43.9	40.9
(4) Удмуртская АССР	172.3	170.9	6.9	5.3	4.6	4.8	31.8	29.1
(5) Западно-Сибирский р-н								
(6) Алтайский край	242.5	238.1	9.7	8.0	3.6	3.9	41.2	41.0
(7) Кемеровская обл.	224.5	237.0	6.8	6.1	3.3	2.9	44.2	46.8
(8) г. Новосибирск	240.0	223.0	4.8	3.7	4.7	4.9	38.9	38.9
(9) Новосибирская обл.	227.2	236.3	7.2	7.8	4.0	4.5	39.4	45.5
(10) г. Омск	204.2	214.8	2.5	3.1	5.8	3.7	37.1	33.9
(11) Омская обл.	205.7	215.4	4.8	6.1	5.6	3.7	38.1	38.8
(12) Томская обл.	168.4	183.0	6.5	5.5	2.8	2.7	38.5	34.5
(13) Томская обл.	155.5	154.7	5.5	4.5	3.8	3.1	27.2	28.0
(14) Восточно-Сибирский р-н								
(15) Красноярский край	177.0	177.1	6.0	4.5	3.3	3.3	38.0	38.0
(16) Иркутская обл.	192.1	194.3	5.1	4.5	5.8	5.2	40.9	40.4
(17) Читинская обл.	161.3	165.5	5.4	4.3	4.8	5.6	33.7	33.0
(18) Бурятская АССР	189.7	179.9	5.3	5.1	10.4	9.9	48.4	43.7
(19) Тувинская АССР	138.1	145.8	2.6	2.2	18.4	18.5	21.3	26.9
(20) Дальневосточный р-н								
(21) Приморский край	180.3	187.8	7.0	4.1	3.2	3.2	35.0	34.0
(22) Хабаровский край	206.0	203.5	6.2	5.7	4.8	3.8	37.7	38.5
(23) Амурская обл.	162.1	168.2	4.8	4.9	2.8	3.9	33.3	32.4
(24) Камчатская обл.	110.8	132.1	1.5	0.8	2.3	6.0	22.9	18.8
(25) Магаданская обл.	125.6	125.1	4.3	2.0	5.6	4.2	17.4	20.8
(26) Сахалинская обл.	181.8	182.5	4.2	2.7	8.1	6.1	38.0	39.6
(27) Якутская обл.	133.4	137.6	1.1	1.3	22.5	22.3	20.0	24.8
(28) УКОРАЙСКАЯ ССР	238.6	246.5	7.3	6.8	3.1	3.0	35.5	38.0
(29) Донецко-Продвинский р-н								
(30) г. Днепродзержинск	246.8	278.4	3.5	3.2	3.3	3.6	37.5	40.0
(31) Днепродзержинская обл.	254.7	258.1	5.9	5.4	2.9	2.3	38.8	38.8
(32) г. Донецк	203.8	195.5	2.3	2.4	1.9	2.0	33.6	28.4
(33) Донецкая обл.	241.9	245.1	6.1	5.6	2.9	2.9	38.8	38.8
(40) Юго-Западный район								
(41) Кировская обл.	232.7	229.4	8.8	5.6	2.7	2.3	30.9	30.1
(42) Кировоградская обл.	301.2	297.5	10.8	10.4	3.7	4.8	43.4	44.5
(43) Воронежская обл.	246.3	262.5	8.4	6.2	2.9	3.7	38.8	38.5
(44) Полтавская обл.	271.4	273.3	10.1	8.4	3.6	2.9	38.4	38.9
(45) Сумская обл.	254.0	269.3	10.8	8.7	4.3	3.9	44.5	48.8
(46) г. Харьков	249.6	189.2	3.7	3.5	2.2	1.7	38.8	34.1
(47) Харьковская обл.	247.0	263.1	8.3	7.7	2.8	2.4	38.9	37.7
(41) Юго-Западный район								
(48) Винницкая обл.	249.1	258.0	10.5	11.5	4.9	4.5	35.4	34.5
(49) Волынская обл.	188.6	190.7	4.7	5.0	2.3	1.8	29.4	31.3
(50) Житомирская обл.	210.6	213.3	7.2	6.7	2.9	2.3	35.8	35.5
(51) Закарпатская обл.	162.0	161.0	4.5	4.3	1.3	1.1	21.0	17.9
(52) Закарпатская обл.	183.8	185.0	4.0	4.2	2.1	1.4	30.0	30.1
(53) Ивано-Франковская обл.	240.1	236.6	3.1	2.0	2.8	2.6	33.1	31.6
(54) г. Киев	248.6	280.2	9.7	9.4	5.5	5.0	40.9	41.6
(55) Киевская обл.	230.5	239.5	1.8	2.3	1.5	2.8	37.9	31.0
(56) г. Львов	180.6	186.4	3.9	3.9	2.0	1.8	28.3	28.8
(57) Львовская обл.	180.9	184.4	6.7	5.0	1.8	1.5	28.8	28.8
(58) Ровненская обл.	222.6	222.6	8.4	7.9	1.9	1.9	30.3	34.1
(59) Тернопольская обл.	207.2	220.8	8.2	9.8	3.3	3.4	32.3	32.3
(60) Хмельницкая обл.	205.2	272.8	11.3	10.1	4.1	4.0	40.0	44.1
(61) Черкасская обл.	198.1	228.8	4.0	4.3	2.4	2.5	43.5	44.8
(62) Черниговская обл.	211.3	211.7	7.1	6.3	1.8	0.7	28.8	22.7
(57) Южный район								
(63) Краснодарская обл.	214.3	219.8	6.5	6.8	2.3	2.6	30.8	30.3
(64) Ставропольская обл.	239.0	275.7	10.2	9.1	3.1	3.7	32.7	31.5
(65) г. Омск	231.0	232.1	3.8	4.1	4.9	4.9	34.9	35.1
(66) Омская обл.	283.9	288.3	8.5	8.8	4.7	4.9	38.1	38.8
(67) Херсонская обл.	202.8	281.0	10.0	8.3	2.4	2.0	32.3	30.7
(68) Валарушская ССР	190.4	195.6	3.4	4.0	2.2	2.0	40.3	40.5
(69) г. Минск	189.4	181.9	1.1	0.8	1.3	1.2	24.3	20.7
(70) Брестская обл.	178.9	188.2	3.6	4.3	2.0	2.0	37.5	38.5
(71) Витебская обл.	210.5	221.7	3.0	3.7	3.3	2.2	40.7	40.7
(72) Гомельская обл.	185.8	182.9	4.8	4.9	1.4	2.3	41.5	37.5
(73) Гродненская обл.	173.0	179.8	4.8	4.6	1.6	2.1	35.0	37.0
(74) Минская обл.	188.7	188.8	1.9	4.0	3.0	1.0	42.2	42.0
(75) Могилевская обл.	224.8	220.1	5.3	5.7	2.8	2.1	40.8	40.7
(76) Могилевская ССР	149.0	151.4	5.4	5.3	1.3	1.5	17.8	18.1
(77) г. Калинин	198.3	183.4	2.0	2.4	3.4	2.5	21.9	18.1

Key:—1. Sverdlovsk Oblast—2. City of Chelyabinsk—3. Chelyabinsk Oblast—4. Udmurt ASSR—5. Zapadno-Sibirskiy Rayon—6. Altay Kray—7. Kemerovo Oblast—8. City of Novosibirsk—9. Novosibirsk Oblast—10. City of Omsk—11. Omsk Oblast—12. Tomsk Oblast—13. Tyumen Oblast—14. Vostochno-Sibirskiy Rayon—15. Krasnoyarsk Kray—16. Irkutsk Oblast—17. Chita Oblast—18. Buryat ASSR—19. Tuva ASSR—20. Dalnevostochnyy Rayon—21. Maritime Kray—22. Khabarovsk Kray—23. Amur Oblast—24. Kamchatka Oblast—25. Magadan Oblast—26. Sakhalin Oblast—27. Yakutsk Oblast—28. UKRAINIAN SSR—29. Donetsk-Pridneprovskiy Rayon—30. City of Dnepropetrovsk—31. Dnepropetrovsk Oblast—32. City of Donetsk—33. Donesk Oblast—34. Zaporozhye Oblast—35. Kirovograd Oblast—36. Voroshilovgrad Oblast—37. Poltava Oblast—38. Sumy Oblast—39. City of Kharkov—40. Kharkov Oblast—41. Yugo-Zapadnyy Rayon—42. Vinnitsa Oblast—43. Volyn Oblast—44. Zhitomir Oblast—45. Transcarpathian Oblast—46. Ivano-Frankovsk Oblast—47. City of Kiev—48. Kiev Oblast—49. City of Lvov—50. Lvov Oblast—51. Rovno Oblast—52. Ternopol Oblast—53. Khmel'nitskiy Oblast—54. Cherkassy Oblast—55. Chernigov Oblast—56. Chernovtsy Oblast—57. Yuzhnyy Rayon—58. Crimean Oblast—59. Nikolayev Oblast—60. City of Odessa—61. Odessa Oblast—62. Kherson Oblast—63. Belorussian SSR—64. City of Minsk—65. Brest Oblast—66. Vitebsk Oblast—67. Gomel Oblast—68. Grodno Oblast—69. Minsk Oblast—70. Mogilev Oblast—71. Moldavian SSR—72. City of Kishinev

Table 5 (continued)

	2	3	4	5	6	7	8	9
(1) Прибалтийский р-н								
(2) Литовская ССР	250,9	245,1	4,2	4,4	2,1	2,8	39,4	37,4
(3) г. Вильнюс	205,8	194,3	1,8	1,8	1,8	1,4	27,7	30,1
(4) Латвийская ССР	252,7	249,6	3,5	3,3	2,8	2,1	38,0	32,8
(5) г. Рига	281,5	277,3	2,4	2,1	2,7	1,3	37,0	33,4
(6) Эстонская ССР	271,4	273,5	2,0	1,7	2,3	1,9	39,7	38,2
(7) г. Таллин	286,9	280,6	0,7	1,1	3,5	2,0	38,8	40,3
(8) Калининградская обл.	212,0	220,7	3,9	3,1	3,2	5,1	40,1	37,0
(9) Закавказский район								
(10) Грузинская ССР	105,7	123,2	2,2	2,5	1,5	2,0	11,0	11,7
(11) г. Тбилиси	120,1	148,8	1,6	1,6	1,6	2,5	10,9	15,3
(12) Азербайджанская ССР	94,6	97,3	1,8	1,4	0,9	7,3	16,7	18,0
(13) г. Баку	104,0	159,6	2,0	1,2	9,6	8,7	28,4	24,4
(14) Армянская ССР	125,1	127,0	2,2	2,3	2,7	2,7	17,1	17,3
(15) г. Ереван	184,6	188,2	2,4	2,4	3,8	3,2	23,2	24,3
(16) Среднеазиатский р-н								
(17) Узбекская ССР	73,3	71,9	1,2	1,1	11,9	11,8	10,8	10,3
(18) г. Ташкент	125,7	134,0	2,4	1,8	7,4	6,2	19,5	21,1
(19) Аджарская обл.	81,2	74,9	0,4	0,3	22,8	20,0	12,9	10,2
(20) Вухарская обл.	73,9	70,9	1,1	0,9	11,0	12,0	11,8	10,3
(21) Джикатская обл.	25,3	41,2	0,9	0,9	5,6	5,8	4,9	4,7
(22) Кайнадарынская обл.	41,8	28,5	0,7	0,9	6,5	4,4	5,3	2,8
(23) Наманганская обл.	61,7	58,7	1,1	0,4	15,6	15,3	10,0	7,8
(24) Самаркандская обл.	56,2	57,0	1,3	1,2	4,9	6,7	7,8	8,5
(25) Суравандарская обл.	48,5	37,5	0,7	1,1	8,5	8,8	4,8	4,4
(26) Сырдарьинская обл.	42,8	46,8	1,3	0,4	5,4	5,9	4,1	5,3
(27) Ташкентская обл.	98,8	108,1	2,3	2,4	11,1	13,2	18,2	15,7
(28) Ферганская обл.	67,5	80,8	1,1	0,6	12,0	11,6	7,1	8,3
(29) Хорезмская обл.	55,6	52,2	1,0	1,0	13,9	10,0	4,8	5,7
(30) Каракалпакская обл.	85,5	82,9	0,7	0,6	22,8	24,9	18,0	15,2
(31) Киргизская ССР	115,1	111,7	3,0	2,8	6,6	6,5	21,5	20,3
(32) г. Фрунзе	212,4	207,0	3,3	3,4	8,3	8,4	24,5	28,9
(33) Таджикская ССР	71,8	67,7	1,3	1,4	8,9	6,0	11,2	11,0
(34) г. Душанбе	208,0	192,3	3,3	3,5	5,5	6,4	27,5	28,5
(35) Туркменская ССР	105,7	103,3	1,2	1,2	30,5	27,8	14,8	14,8
(36) г. Ашхабад	157,2	150,7	1,2	1,2	17,2	14,2	20,2	20,0
(37) Казахская ССР	183,8	185,8	4,7	4,2	30,2	19,5	26,7	28,9
(38) г. Алма-Ата	187,8	186,6	4,2	4,6	6,2	6,5	27,1	28,2
(39) Акмолинская обл.	179,1	199,7	3,1	5,6	41,1	38,9	28,1	40,9
(40) Алма-Атинская обл.	188,9	181,3	6,1	4,5	18,6	19,3	31,6	22,1
(41) Восточно-Казахстанская обл.	225,5	222,7	5,4	4,0	14,2	12,9	28,8	24,8
(42) Гурьевская обл.	182,8	185,9	2,4	2,4	63,6	57,1	20,9	22,3
(43) Джамбулская обл.	153,0	189,3	2,7	2,4	21,0	19,0	26,3	24,8
(44) Джамбулская обл.	144,1	146,8	3,1	3,1	18,3	22,8	27,3	22,8
(45) Карагандинская обл.	172,8	172,7	7,1	6,0	8,8	9,0	28,0	28,7
(46) Кызыл-Ординская обл.	140,1	149,5	2,3	0,5	52,9	57,8	26,3	24,4
(47) Кокчетавская обл.	188,5	172,4	8,5	6,7	15,1	15,5	26,2	20,8
(48) Кустанайская обл.	183,7	171,4	5,0	4,8	15,7	10,7	29,1	27,3
(49) Магнитогорская обл.	63,9	67,0	1,1	1,1	22,4	24,2	14,0	11,8
(50) Павлодарская обл.	129,1	128,5	4,2	3,9	12,6	14,9	28,8	28,0
(51) Северо-Казахстанская обл.	185,9	183,0	4,5	2,4	6,6	7,4	27,7	20,0
(52) Семипалатинская обл.	189,0	189,8	4,3	3,8	20,3	20,0	27,3	25,3
(53) Талды-Кургинская обл.	137,1	140,6	2,0	2,8	16,2	16,2	24,1	24,8
(54) Туркестанская обл.	119,4	122,5	5,0	3,8	16,0	18,3	20,0	22,5
(55) Уральская обл.	181,1	178,1	4,7	4,5	27,5	26,5	28,8	28,9
(56) Челябинская обл.	100,3	102,3	2,9	2,7	15,2	15,4	18,0	14,7
(57) Челябинская обл.	126,1	128,0	6,5	5,2	10,1	10,2	22,2	28,4

Key:—1. Pribaltiyskiy Rayon—2. Lithuanian SSR—3. City of Vilnius—4. Latvian SSR—5. City of Riga—6. Estonian SSR—7. City of Tallin—8. Kaliningrad Oblast—9. Zakavskiy Rayon—10. Georgian SSR—11. City of Tbilisi—12. Azerbaijan SSR—13. City of Baku—14. Armenian SSR—15. City of Erevan—16. Sredneaziatskiy Rayon—17. Uzbek SSR—18. City of Tashkent—19. Andizhan Oblast—20. Bukhara Oblast—21. Dzhizak Oblast—22. Kashka-Darya Oblast—23. Namangan Oblast—24. Samarkand Oblast—25. Surkhan-Darya Oblast—26. Syr-Darya Oblast—27. Tashkent Oblast—28. Fergana Oblast—29. Khorezm Oblast—30. Kara-Kalpak Oblast—31. Kirghiz SSR—32. City of Frunze—33. Tadzhik SSR—34. City of Dushanbe—35. Turkmen SSR—36. City of Ashkhabad—37. Kazakh SSR—38. City of Alma-Ata—39. Aktyubinsk Oblast—40. Alma-Ata Oblast—41. East Kazakhstan Oblast—42. Guryev Oblast—43. Dzhambul Oblast—44. Dzhezkazgan Oblast—45. Karaganda Oblast—46. Kzyl-Orda Oblast—47. Kokchetav Oblast—48. Kustanay Oblast—49. Mangyshlak Oblast—50. Pavlodar Oblast—51. North Kazakhstan Oblast—52. Semipalatinsk Oblast—53. Taldy-Kurgan Oblast—54. Turgay Oblast—55. Ural Oblast—56. Chimkent Oblast—57. Tselinograd Oblast

Table 5 (continued)

(2) Экономические районы, республика, край и области	(1) Число больных с впервые установленным диагнозом злокачественных новообразований по месту учета в онкологических учреждениях									
	(3) Горькая обл.		(4) Ленинск обл.		(5) Шахматская обл.		(6) Магнитогорская обл.		(7) Коми 175-179	
	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.
	12	13	14	15	16	17	18	19	20	21
(8) СССР	3,9	3,9	29,4	30,3	11,4	10,9	15,1	15,6	23,3	23,9
(9) РСФСР	4,4	4,4	34,2	35,5	12,6	12,1	16,6	17,2	25,1	25,8
(10) Северо-Западный р-н										
(11) Архангельская обл.	3,7	3,8	32,9	33,0	14,1	13,0	12,8	13,2	13,4	13,7
(12) Вологодская обл.	3,1	2,6	33,9	30,9	11,0	8,9	12,8	14,0	15,6	23,9
(13) г. Ленинград	4,0	4,4	40,8	41,5	11,2	9,4	29,8	30,9	19,2	30,9
(14) Ленинградская обл.	3,6	4,6	41,4	39,4	9,7	9,8	18,0	16,2	30,6	21,9
(15) Мурманская обл.	3,0	2,6	21,9	21,1	6,6	4,6	13,6	13,5	13,6	8,1
(16) Новгородская обл.	5,4	4,4	41,3	44,6	14,0	13,3	16,4	18,6	27,0	30,0
(17) Псковская обл.	5,0	5,0	38,0	38,4	12,1	10,6	21,5	15,0	21,0	22,8
(18) Карельская АССР	7,0	3,5	33,9	33,3	8,9	6,7	15,6	15,2	15,1	16,3
(19) Коми АССР	2,4	3,0	20,0	24,4	8,2	9,3	8,9	10,1	9,6	9,8
(20) Центральный р-н										
(21) Брянская обл.	3,8	4,8	28,9	35,5	11,4	9,9	15,0	13,8	28,6	27,9
(22) Владимирская обл.	5,1	5,9	36,4	41,4	11,6	11,2	18,5	16,7	21,8	22,3
(23) Ивановская обл.	4,9	6,0	41,8	45,9	14,5	13,5	22,0	23,4	38,6	38,7
(24) Калининская обл.	4,0	4,5	41,1	41,5	11,5	9,1	20,4	19,8	15,3	11,2
(25) Калужская обл.	4,9	5,0	50,8	38,4	11,5	9,6	15,2	13,5	16,8	18,0
(26) Костромская обл.	4,5	5,5	36,7	32,8	12,6	13,3	19,3	17,1	24,5	26,7
(27) г. Москва	4,8	4,6	38,9	38,4	9,7	9,5	28,8	30,8	19,7	19,5
(28) Московская обл.	5,0	4,7	37,3	37,3	9,9	11,0	22,4	22,4	22,9	24,7
(29) Орловская обл.	5,9	5,8	29,6	34,3	13,0	13,2	16,1	17,8	20,6	26,5
(30) Рязанская обл.	6,4	5,6	38,0	37,3	19,7	9,3	15,9	17,2	21,1	22,3
(31) Смоленская обл.	5,0	6,3	30,1	33,5	14,3	10,6	17,7	17,4	19,8	18,4
(32) Тульская обл.	5,6	6,6	48,2	44,8	17,5	14,2	20,0	21,8	22,9	22,4
(33) Ярославская обл.	5,2	4,8	38,7	39,3	11,9	10,5	17,7	20,5	22,1	30,4
(34) Волго-Вятский р-н										
(35) г. Горький	4,8	5,5	40,3	38,4	13,2	11,8	21,4	25,8	34,1	39,5
(36) Горьковская обл.	4,7	4,7	38,2	40,0	13,9	12,4	17,5	20,8	33,6	33,0
(37) Кировская обл.	3,1	4,4	31,5	36,3	18,8	15,1	12,5	12,3	20,1	21,8
(38) Марийская АССР	2,0	3,2	16,8	14,2	10,0	14,3	8,8	8,8	17,1	16,8
(39) Мордовская АССР	2,9	4,4	25,1	26,5	7,8	9,8	12,1	12,7	28,5	28,5
(40) Чувашская АССР	2,1	2,3	12,8	15,3	12,4	10,7	9,3	8,4	11,2	15,2
(41) Центр. Чернозем. р-н										
(42) Белгородская обл.	4,4	4,2	36,9	36,6	12,5	12,6	19,6	16,7	22,1	38,0
(43) Воронежская обл.	5,8	5,0	38,8	36,2	13,7	11,9	19,1	17,5	38,0	40,7
(44) Курская обл.	4,3	4,5	27,7	31,5	12,0	13,0	14,2	17,1	22,8	21,7
(45) Липецкая обл.	4,6	6,1	41,0	37,8	12,6	12,3	15,6	15,0	25,3	26,6
(46) Тамбовская обл.	4,8	4,8	36,2	39,1	12,0	13,1	14,5	14,2	25,6	28,2
(47) Поволжский район										
(48) Астраханская обл.	6,3	4,2	38,3	41,8	8,9	10,0	16,9	13,2	47,2	43,2
(49) Волгоградская обл.	5,3	5,9	33,9	48,3	18,5	14,8	15,2	17,2	40,0	60,8
(50) г. Куйбышев	12,4	12,4	47,5	43,1	10,0	10,0	22,1	23,9	32,4	31,8
(51) Куйбышевская обл.	1,5	1,5	42,5	43,1	12,1	10,8	16,5	17,9	32,4	32,4
(52) Пензенская обл.	3,1	4,1	37,4	38,9	10,4	11,1	14,1	14,5	28,7	29,7
(53) Саратовская обл.	6,2	5,0	44,2	44,8	14,9	14,3	19,0	19,4	38,0	40,4
(54) Ульяновская обл.	4,5	6,3	38,8	27,5	11,1	11,0	14,2	14,8	31,4	29,6
(55) Самарская АССР	3,3	2,7	23,2	23,5	9,9	8,6	9,3	10,1	18,4	15,1
(56) Калмыцкая АССР	3,0	3,0	24,7	29,1	10,0	11,2	8,0	9,3	14,7	15,3
(57) Татарская АССР	4,1	3,2	26,1	26,1	8,8	8,9	12,4	13,3	14,8	16,6
(58) Северо-Кавказск. р-н										
(59) Краснодарский край	4,8	4,3	37,7	38,1	15,9	13,8	20,0	19,8	55,5	57,4
(60) Ставропольский край	3,8	4,0	34,2	36,6	12,5	13,7	17,2	17,0	51,2	50,9
(61) Ростовская обл.	5,6	4,5	40,7	41,0	14,3	14,8	19,3	19,5	41,8	44,3
(62) Дагестанская АССР	2,6	2,7	12,7	13,0	4,6	5,9	6,4	7,3	17,7	17,0
(63) Кабардино-Балкар. АССР	2,8	3,5	23,4	26,2	11,4	9,1	15,8	15,1	31,3	22,8
(64) Чечено-Ингушская АССР	5,0	3,0	28,7	28,9	10,7	8,3	12,7	13,3	22,8	48,8
(65) Северо-Осетинск. АССР	4,0	3,8	22,6	22,9	10,7	8,1	24,4	25,9	32,2	43,4

Key:—1. Number of patients with first-time diagnosis of malignant carcinoma followed up by oncological facility—
2. Economic rayons, republics, krais, and oblasts—3. Larynx, 161—4. Lungs, 162—5. Cervix, 180—6. Mammary
gland, 174—7. Skin, 172-173—8. USSR—9. RSFSR—10. Severo-Zapadnyy Rayon—11. Arkhangelsk Oblast—12.
Vologda Oblast—13. City of Leningrad—14. Leningrad Oblast—15. Murmansk Oblast—16. Novgorod Oblast—17.
Pskov Oblast—18. Karelian ASSR—19. Komi ASSR—20. Tsentralnyy Rayon—21. Bryansk Oblast—22. Vladimir
Oblast—23. Ivanovo Oblast—24. Kalinin Oblast—25. Kaluga Oblast—26. Kostroma Oblast—27. City of Moscow—
28. Moscow Oblast—29. Orel Oblast—30. Ryazan Oblast—31. Smolensk Oblast—32. Tula Oblast—33. Yaroslavl
Oblast—34. Volgo-Vyatskiy Rayon—35. City of Gorky—36. Gorkiy Oblast—37. Kirov Oblast—38. Mari ASSR—39.
Mordovian ASSR—40. Chuvash ASSR—41. Tsentralno-Chernozemnyy Rayon—42. Belgorod Oblast—43. Voronezh
Oblast—44. Kursk Oblast—45. Liptesk Oblast—46. Tambov Oblast—47. Povolzhskiy Rayon—48. Astrakhan
Oblast—49. Volgograd Oblast—50. City of Kuybyshev—51. Kuybyshev Oblast—52. Penza Oblast—53. Saratov
Oblast—54. Ulyanovsk Oblast—55. Bashkir ASSR—56. Kalmyk ASSR—57. Tatar ASSR—58. Severo-Kavkaskiy
Rayon—59. Krasnodar Kray—60. Stavropol Kray—61. Rostov Oblast—62. Dagestan ASSR—63. Kabardino-Balkar
ASSR—64. Chechen-Ingush ASSR—65. North Ossetian ASSR

Table 5 (continued)

	12	13	14	15	16	17	18	19	20	21
(1) Уральский район										
(2) Курганская обл.	4.7	4.0	40.0	38.7	19.8	18.3	11.5	15.3	29.1	35.3
(3) Оренбургская обл.	2.8	5.0	30.7	34.2	9.1	10.9	12.8	15.4	37.0	37.8
(4) Пермская обл.	3.7	3.2	29.1	31.5	15.3	14.7	12.9	13.7	17.0	18.8
(5) г. Свердловск	4.2	3.4	30.0	34.0	12.0	12.0	19.2	19.5	10.5	11.1
(6) Свердловская обл.	4.8	5.1	37.8	38.5	18.9	17.6	16.3	17.3	14.4	15.0
(7) г. Челябинск	4.1	3.5	40.9	40.8	14.1	10.9	19.9	20.7	41.8	42.3
(8) Челябинская обл.	4.1	3.8	41.8	42.8	15.3	13.0	16.6	16.5	31.3	25.9
(9) Магнитогорская АССР	2.8	2.0	23.3	23.8	13.3	13.5	10.3	10.8	19.3	17.3
(10) Западно-Сибирский р-н										
(11) Алтайский край	5.4	5.0	41.9	42.1	17.9	16.8	13.5	12.5	29.7	28.8
(12) Кемеровская обл.	4.7	4.4	34.3	40.7	15.8	18.5	16.6	16.2	21.3	22.7
(13) г. Новосибирск	4.3	4.8	26.9	27.0	12.3	12.8	19.3	18.7	25.1	20.9
(14) Новосибирская обл.	4.3	5.1	28.2	28.1	13.5	15.1	15.4	16.4	23.8	22.6
(15) г. Омск	4.0	4.8	29.4	33.1	10.7	11.5	16.9	1.4	20.1	21.8
(16) Омская обл.	4.6	4.2	22.7	26.4	13.9	13.6	13.8	16.3	19.5	21.7
(17) Тюменская обл.	3.5	4.1	21.7	27.7	12.4	15.2	11.7	16.5	18.6	20.3
(18) Тюменская обл.	3.2	3.7	24.7	23.3	13.2	12.2	9.3	10.9	13.8	13.2
(19) Восточно-Сибирский р-н										
(20) Красноярский край	4.5	4.0	28.5	33.2	14.7	12.9	13.2	11.9	14.7	14.4
(21) Иркутская обл.	4.7	3.2	27.1	27.4	13.5	11.9	14.3	15.5	14.8	18.4
(22) Читинская обл.	4.5	4.8	28.6	26.7	16.0	16.1	10.1	13.6	16.4	15.7
(23) Бурятская АССР	4.1	3.1	28.8	28.2	11.4	12.4	10.1	10.5	12.7	10.5
(24) Тувинская АССР	2.2	3.7	22.4	28.8	10.4	11.1	7.8	7.0	5.6	6.9
(25) Дальневосточный р-н										
(26) Приморский край	5.2	4.0	25.4	23.4	14.2	12.0	14.8	14.8	26.4	22.8
(27) Хабаровский край	5.1	4.4	25.8	28.0	14.0	12.2	13.3	13.3	21.9	21.4
(28) Амурская обл.	4.7	3.6	27.2	25.7	12.7	13.2	11.1	13.0	12.2	15.9
(29) Камчатская обл.	3.1	3.8	15.4	21.8	7.5	8.0	9.0	10.8	10.3	9.5
(30) Магаданская обл.	1.8	2.0	23.1	22.4	5.4	7.3	9.3	11.1	9.3	6.9
(31) Сахалинская обл.	6.6	4.2	34.8	32.5	10.4	8.2	10.7	9.4	14.4	13.8
(32) Якутская АССР										
(33) УКАРИНСКАЯ ССР	2.4	2.2	21.8	23.3	6.4	5.6	8.5	6.8	4.3	2.7
(34) Украинская ССР	4.0	4.5	26.7	26.6	12.7	13.3	18.4	18.3	20.0	21.1
(35) Донецко-Продвинутый р-н										
(36) г. Донецк	3.5	5.1	37.2	42.8	10.0	9.5	22.4	25.4	20.2	29.7
(37) Донецкая обл.	3.9	4.5	42.7	44.9	12.5	12.4	20.6	21.8	21.8	21.5
(38) Закарпатская обл.	2.7	2.6	37.2	37.5	11.9	9.6	19.4	19.2	20.8	14.7
(39) Донецкая обл.	3.8	4.2	42.7	42.2	13.2	13.1	19.5	19.3	20.4	20.9
(40) Кировоградская обл.	4.5	4.2	28.8	28.0	12.9	11.3	22.4	21.8	26.1	24.4
(41) Кировоградская обл.	6.6	5.5	46.1	48.9	14.1	14.4	20.6	19.3	20.5	42.0
(42) Воронежская обл.	4.4	5.5	28.0	27.4	18.1	18.4	18.7	21.4	20.2	20.4
(43) Полтавская обл.	4.3	5.0	28.5	29.1	13.8	12.4	21.1	18.9	22.4	24.3
(44) Сумская обл.	4.7	4.1	28.2	31.5	17.8	18.3	18.0	17.7	26.1	40.3
(45) г. Харьков	3.8	2.7	20.1	34.2	10.9	8.9	28.7	21.0	22.4	20.8
(46) Харьковская обл.	3.7	2.8	23.9	27.9	15.6	12.9	22.9	26.0	20.5	20.6
(47) Юго-Западный р-н										
(48) Волынская обл.	3.8	4.8	26.3	27.1	11.8	11.8	14.5	16.1	41.2	48.3
(49) Волынская обл.	3.5	4.3	21.8	19.3	12.0	12.3	12.0	12.3	15.6	20.7
(50) Житомирская обл.	3.8	4.0	28.2	22.1	14.2	11.6	14.3	14.3	22.9	24.3
(51) Закарпатская обл.	3.9	2.6	23.1	22.8	9.8	8.5	12.5	12.8	19.9	22.6
(52) Ивано-Франковская обл.										
(53) г. Киев	3.0	5.9	27.2	20.4	14.1	12.8	12.8	11.3	22.1	19.9
(54) Киевская обл.	2.9	3.9	29.4	25.9	8.5	10.5	20.1	24.6	26.1	23.5
(55) Киевская обл.	2.5	4.7	20.0	20.8	15.8	15.8	18.8	18.2	20.3	20.3
(56) г. Львов	2.8	3.2	21.1	23.0	18.8	17.9	21.4	20.8	22.8	20.8
(57) Львовская обл.	2.9	3.2	25.1	27.8	13.9	14.3	13.9	13.4	23.5	21.3
(58) Ровненская обл.	3.4	3.1	22.1	26.1	12.4	10.5	12.0	14.0	20.7	19.3
(59) Ровненская обл.	3.6	3.8	24.1	22.2	13.1	12.4	13.1	14.9	26.4	23.8
(60) Тернопольская обл.	4.1	3.6	22.4	26.7	11.3	12.3	14.6	16.0	20.7	24.2
(61) Хмельницкая обл.	4.1	4.5	26.5	20.5	20.3	18.2	17.2	16.8	27.0	24.3
(62) Черкасская обл.	3.6	4.9	28.4	28.4	12.5	12.2	14.2	16.4	15.8	19.8
(63) Черкасская обл.	3.7	3.8	24.4	20.9	18.3	18.6	10.7	12.8	24.2	20.5
(64) Южный район										
(65) Крымская обл.	4.4	4.8	31.2	31.0	8.1	9.8	17.4	17.8	28.8	28.4
(66) Николаевская обл.	5.2	6.4	46.1	46.7	14.7	17.3	18.7	19.3	28.4	40.3
(67) г. Одесса	4.8	5.1	42.8	42.7	13.2	13.4	41.4	41.6	48.5	48.1

Key:—1. Uralskiy Rayon—2. Kurgan Oblast—3. Orenburg Oblast—4. Perm Oblast—5. City of Sverdlovsk—6. Sverdlovsk Oblast—7. City of Chelyabinsk—8. Chelyabinsk Oblast—9. Udmurt ASSR—10. Zapadno-Sibirskiy Rayon—11. Altay Kray—12. Kemerovo Oblast—13. City of Novosibirsk—14. Novosibirsk Oblast—15. City of Omsk—16. Omsk Oblast—17. Tomsk Oblast—18. Tyumen Oblast—19. Vostochno-Sibirskiy Rayon—20. Krasnoyarsk Kray—21. Irkutsk Oblast—22. Chita Oblast—23. Buryat ASSR—24. Tuva ASSR—25. Dalnevostochnyy Rayon—26. Maritime Kray—27. Khabarovsk Kray—28. Amur Oblast—29. Kamchatka Oblast—30. Magadan Oblast—31. Sakhalin Oblast—32. Yakutsk Oblast—33. UKRAINIAN SSR—34. Donetsk-Pridneprovskiy Rayon—35. City of Dnepropetrovsk—36. Dnepropetrovsk Oblast—37. City of Donetsk—38. Donesk Oblast—39. Zaporozhye Oblast—40. Kirovograd Oblast—41. Voroshilovgrad Oblast—42. Poltava Oblast—43. Sumy Oblast—44. City of Kharkov—45. Kharkov Oblast—46. Yugo-Zapadnyy Rayon—47. Vinnitsa Oblast—48. Volyn Oblast—49. Zhitomir Oblast—50. Transcarpathian Oblast—51. Ivano-Frankovsk Oblast—52. City of Kiev—53. Kiev Oblast—54. City of Lvov—55. Lvov Oblast—56. Rovno Oblast—57. Ternopol Oblast—58. Khmel'nitskiy Oblast—59. Cherkassy Oblast—60. Chernigov Oblast—61. Chernovtsy Oblast—62. Yuzhnyy Rayon—63. Crimean Oblast—64. Nikolayev Oblast—65. City of Odessa

Table 5 (continued)

1	2	3	4	5	6	7	8	9	10	11
(1) Одесская обл.	5.0	5.2	30.2	30.9	15.3	15.5	20.5	20.8	37.1	37.3
(2) Херсонская обл.	5.1	4.8	44.2	44.1	11.8	10.7	18.8	19.9	36.6	36.0
(3) Белорусская ССР	3.6	3.7	21.9	24.6	9.9	10.2	14.0	14.3	21.7	24.6
(4) г. Минск	2.5	2.5	14.3	20.6	8.6	9.8	17.8	19.2	20.9	19.8
(5) Брестская обл.	2.2	3.1	19.7	25.8	8.0	9.0	12.5	11.2	20.0	21.2
(6) Витебская обл.	3.8	4.4	25.3	30.9	9.1	8.1	15.2	16.6	19.7	21.2
(7) Гомельская обл.	3.8	3.7	18.0	17.9	10.5	10.8	14.1	14.7	27.6	24.4
(8) Гродненская обл.	5.0	4.2	21.5	21.9	12.1	10.0	12.9	12.5	18.6	17.8
(9) Могилевская обл.	4.0	4.7	24.2	25.7	8.2	9.0	12.0	11.3	19.7	16.7
(10) Молдавская ССР	4.5	2.8	26.6	29.6	14.2	14.8	13.5	14.1	25.9	29.2
(11) Молдавская ССР	2.6	2.8	20.0	20.8	11.6	11.7	13.0	12.4	20.2	21.9
(12) г. Кишинев	2.6	3.6	29.6	22.4	7.4	5.8	20.1	19.5	26.5	30.2
(13) Премагитский район										
(14) Латвийская ССР	4.8	5.2	35.7	33.6	11.5	10.9	19.7	19.8	33.7	34.1
(15) г. Вильнюс	3.8	2.6	26.3	22.4	7.4	6.3	22.3	22.0	18.1	22.0
(16) Латвийская ССР	4.3	4.2	31.7	35.8	11.8	11.8	22.0	22.6	26.2	31.5
(17) г. Рига	5.1	3.0	38.5	38.2	14.3	13.7	20.1	20.3	31.8	30.1
(18) Эстонская ССР	4.2	4.4	30.2	40.1	11.4	9.7	23.4	22.9	30.5	31.4
(19) г. Таллин	4.0	4.6	39.9	37.5	10.6	9.9	28.9	29.1	35.9	32.0
(20) Калининградская обл.	5.2	3.5	31.8	41.0	11.0	13.4	17.1	19.2	17.7	17.9
(21) Закарпатский район										
(22) Грузинская ССР	3.5	4.5	14.9	15.4	6.3	7.7	14.8	18.1	13.8	14.8
(23) г. Тбилиси	4.3	3.4	16.3	16.5	6.2	7.3	21.1	20.9	10.5	10.4
(24) Азербайджанская ССР	3.1	3.3	11.3	12.8	4.6	4.1	7.8	7.8	8.8	9.3
(25) г. Баку	5.6	5.0	14.5	23.4	8.3	7.2	18.6	18.4	13.6	18.2
(26) Армянская ССР	3.9	4.0	15.1	15.6	7.9	7.1	12.4	12.9	11.8	12.4
(27) г. Ереван	5.7	4.9	21.0	22.4	12.8	14.7	23.4	23.6	17.8	18.6
(28) Среднеазиатский р-н										
(29) Узбекская ССР	1.0	1.1	6.4	6.7	4.0	3.7	4.5	4.2	8.1	7.9
(30) г. Ташкент	1.9	2.5	18.0	18.0	7.2	7.2	12.2	11.1	20.9	21.7
(31) Английская обл.	1.1	1.1	7.6	8.0	3.2	3.0	3.5	2.2	4.7	3.4
(32) Букарская обл.										
(33) Диканская обл.	0.7	0.6	5.1	4.2	3.7	3.3	3.1	3.7	5.4	6.1
(34) Кашгарская обл.	0.3	1.3	4.1	3.6	1.2	3.4	1.7	3.1	5.0	5.4
(35) Наманганская обл.	0.2	0.6	1.7	1.4	1.6	1.2	2.8	1.8	4.2	3.5
(36) Самаркандская обл.	1.2	0.9	3.1	2.7	2.6	3.6	2.0	2.5	3.8	3.5
(37) Сурхандарьинская обл.	0.9	0.5	4.2	4.0	2.3	2.3	4.7	4.0	7.7	6.9
(38) Сырдарьинская обл.	0.9	0.7	2.0	1.3	3.1	2.3	1.2	1.8	4.4	4.2
(39) Ташкентская обл.	0.9	0.4	2.8	5.9	3.9	4.2	4.5	6.5	8.4	4.2
(40) Ферганская обл.	1.7	1.5	11.9	13.6	6.6	5.8	6.7	6.2	10.9	11.8
(41) Хорезмская обл.	0.7	1.1	6.8	8.2	3.0	2.3	3.9	3.0	10.3	7.4
(42) Каракалпакская обл.	0.6	1.2	2.4	3.9	4.5	4.6	2.8	3.4	4.3	5.0
(43) Киргизская ССР	0.6	0.5	2.9	2.3	5.8	4.2	2.1	1.5	3.0	3.2
(44) г. Фрунзе	1.6	1.3	12.3	12.0	7.2	6.7	7.3	6.6	16.4	17.6
(45) Таджикская ССР	2.5	2.1	25.0	27.4	11.0	8.4	17.5	15.4	42.2	48.2
(46) г. Душанбе	1.2	1.2	5.8	5.2	3.5	2.8	4.1	4.1	12.7	12.7
(47) Туркменская ССР	3.3	3.7	22.0	20.2	9.2	6.8	18.8	12.7	20.2	48.2
(48) г. Ашхабад	2.3	1.9	8.0	7.9	4.8	4.8	3.5	4.6	9.9	8.6
(49) Казахская ССР	3.7	3.0	21.2	20.0	8.2	8.2	11.4	12.9	18.9	19.4
(50) г. Алма-Ата	2.8	2.8	21.7	22.1	9.1	9.7	9.4	9.2	18.0	18.7
(51) Актобинская обл.	2.5	2.1	24.9	25.5	7.5	11.0	15.0	12.2	41.1	22.7
(52) Алма-Атинская обл.	2.2	2.9	19.4	22.8	9.9	8.5	9.3	9.3	14.1	12.7
(53) Восточно-Казахст. обл.	3.3	3.2	20.2	22.0	9.2	11.2	8.8	8.8	18.8	19.2
(54) Гурьевская обл.	3.4	2.9	26.2	26.7	12.3	8.8	12.2	11.5	28.9	41.0
(55) Джамбулская обл.	2.1	3.4	17.6	17.7	5.2	5.2	5.8	7.7	2.7	8.0
(56) Днепропетровская обл.	2.6	3.1	19.2	20.5	10.1	14.0	7.4	6.8	18.9	17.4
(57) Днепропетровская обл.	3.2	2.6	18.9	19.2	8.4	9.4	6.6	6.2	6.2	10.9
(58) Карагандинская обл.	2.6	2.6	25.6	22.6	10.2	9.4	12.7	12.2	22.1	28.4
(59) Кызыл-Ординская обл.	2.1	1.2	8.0	12.4	7.2	10.1	2.6	3.9	4.8	3.6
(60) Кокшетауская обл.	4.0	3.5	25.0	28.8	9.5	7.8	9.2	9.2	14.1	13.2
(61) Кустовская обл.	3.2	4.8	29.7	28.5	10.8	12.8	11.3	9.4	16.4	15.1
(62) Магнитогорская обл.	0.4	1.1	8.7	5.2	1.1	8.1	2.6	1.8	0.8	1.8
(63) Пензенская обл.	2.4	4.2	22.9	22.7	8.2	9.2	8.1	12.7	17.1	15.4
(64) Северо-Кавказ. обл.	5.4	5.5	22.7	26.2	8.8	6.7	11.1	11.8	17.0	20.4
(65) Симбирская обл.	2.4	2.2	22.3	24.2	9.0	8.9	9.7	7.0	12.6	12.5
(66) Тамбовская обл.	2.2	1.2	11.7	12.7	11.4	10.8	6.5	7.4	22.9	18.9
(67) Тургайская обл.	3.2	3.5	21.4	15.2	10.0	18.2	8.4	7.2	4.8	5.9
(68) Уральская обл.	2.0	1.7	20.8	19.1	7.1	6.7	7.8	10.7	17.4	18.2
(69) Челябинская обл.	2.4	1.8	12.2	12.2	5.2	5.2	5.8	6.4	11.9	12.1
(70) Челябинская обл.	3.7	3.2	17.2	17.7	8.0	7.2	9.0	6.9	12.4	15.1

Key:—1. Odessa Oblast—2. Kherson Oblast—3. Belorussian SSR—4. City of Minsk—5. Brest Oblast—6. Vitebsk Oblast—7. Gomel Oblast—8. Grodno Oblast—9. Minsk Oblast—10. Mogilev Oblast—11. Moldavian SSR—12. City of Kishinev—13. Pribaltiyskiy Rayon—14. Lithuanian SSR—15. City of Vilnius—16. Latvian SSR—17. City of Riga—18. Estonian SSR—19. City of Tallin—20. Kaliningrad Oblast—21. Zakavskiy Rayon—22. Georgian SSR—23. City of Tbilisi—24. Azerbaijan SSR—25. City of Baku—26. Armenian SSR—27. City of Erevan—28. Sredneaziatskiy Rayon—29. Uzbek SSR—30. City of Tashkent—31. Andizhan Oblast—32. Bukhara Oblast—33. Dzhizak Oblast—34. Kashka-Darya Oblast—35. Namangan Oblast—36. Samarkand Oblast—37. Surkhan-Darya Oblast—38. Syr-Darya Oblast—39. Tashkent Oblast—40. Fergana Oblast—41. Khorezm Oblast—42. Kara-Kalpak Oblast—43. Kirghiz SSR—44. City of Frunze—45. Tadzhik SSR—46. City of Dushanbe—47. Turkmen SSR—48. City of Ashkhabad—49. Kazakh SSR—50. City of Alma-Ata—51. Aktyubinsk Oblast—52. Alma-Ata Oblast—53. East Kazakhstan Oblast—54. Guryev Oblast—55. Dzhambul Oblast—56. Dzhezkazgan Oblast—57. Karaganda Oblast—58. Kzyl-Orda Oblast—59. Kokchetav Oblast—60. Kustanay Oblast—61. Mangyshlak Oblast—62. Pavlodar Oblast—63. North Kazakhstan Oblast—64. Semipalatinsk Oblast—65. Taldy-Kurgan Oblast—66. Turgay Oblast—67. Ural Oblast—68. Chimkent Oblast—69. Tselinograd Oblast

Table 6. Contingents of Patients with Malignant Carcinomas at Specific Sites, Based on Data Provided by Oncological Facilities

(1) Локализация	(2) МСКБ-8 1965 г.	(3) Число больных со злокачественными новообразованиями, состоящих на учете онкологических учреждений на конец соответствующего года			
		(4) Абс. число		(5) На 100 000 жителей	
		1960 г.	1961 г.	1960 г.	1961 г.
(6) Все злокачественные новообразования	140—209	2 225 764	2 309 838	836,0	860,3
В том числе:					
(7) Полость рта и глотки	140—149	222 812	225 036	83,7	83,8
из них:					
(8) губы	140	191 973	192 786	72,1	71,8
(9) Органов пищеварения и брюшины	150—159	296 534	307 286	111,4	114,4
из них:					
(10) пищевода	150	15 073	15 280	5,7	5,7
(11) желудка	151	161 396	163 525	60,6	60,9
(12) прямой кишки	154	53 710	57 545	20,2	21,4
(13) Органов дыхания	160—163	132 386	139 655	49,7	52,0
из них:					
(14) гортани	161	43 228	44 946	16,2	16,1
(15) трахеи, бронхов, легкого	162	83 243	88 799	31,3	33,1
(16) Костей и соединительной ткани	170, 171	36 393	37 534	13,7	14,0
(17) Кожи	172, 173	610 784	633 259	229,4	235,9
(18) Молочной железы	174	234 877	248 223	88,2	92,4
(19) Мочеполовые органы	180—189	583 808	601 488	219,3	224,0
из них:					
(20) шейки матки	180	338 532	342 041	127,1	127,4
(21) прочих женских половых органов	181, 183	73 622	76 771	27,7	28,6
(22) мочевого пузыря и других мочевых органов	184	54 368	57 371	20,4	21,4
(23) Лимфатической и кроветворной ткани	200—209	62 373	66 916	23,4	24,9

Key:—1. Site—2. MSKB-8, 1965—3. Number of malignant carcinoma patients on record at oncological facilities at the end of the year—4. Absolute number—5. Per 100,000 people—6. All malignant carcinomas—7. Mouth cavity and throat—8. Lips—9. Digestive and abdominal organs—10. Esophagus—11. Stomach—12. Rectum—13. Respiratory organs—14. Larynx—15. Trachea, bronchi, lung—16. Bones and connective tissue—17. Skin—18. Mammary gland—19. Urogenital organs—20. Cervix—21. Other female sex organs—22. Urinary bladder and other urinary organs—23. Lymphatic and hematopoietic tissue

Table 7. Contingents of Patients with Malignant Carcinomas (Including Tumors of Lymphatic and Hematopoietic Tissue), Based on Data Supplied by Oncological Facilities in the USSR and the Union Republics

(1) Соединенные республики	(2) Число больных, зарегистрированных на конец года по годам			
	(3) Абс. число		(4) На 100 000 населения	
	1980 г.	1981 г.	1980 г.	1981 г.
(5) В целом по СССР	2 225 764	2 309 838	836,0	880,3
(6) РСФСР	1 317 676	1 364 249	947,8	975,3
(7) УССР	533 068	552 589	1 065,4	1 101,6
(8) БССР	72 000	75 803	745,4	780,2
(9) Узбекская ССР	32 906	34 406	204,2	207,4
(10) Казахская ССР	75 746	79 676	503,2	522,4
(11) Грузинская ССР	22 122	23 341	438,1	459,6
(12) Азербайджанская ССР	18 642	19 241	300,7	305,4
(13) Латвийская ССР	32 528	33 917	945,9	978,2
(14) Молдавская ССР	26 715	27 853	688,3	691,9
(15) Литовская ССР	30 852	32 189	1 223,7	1 269,5
(16) Киргизская ССР	16 086	16 796	441,1	451,8
(17) Таджикская ССР	8 774	9 006	218,7	222,8
(18) Армянская ССР	12 804	13 931	409,7	438,6
(19) Туркменская ССР	6 492	6 561	223,7	220,5
(20) Эстонская ССР	19 273	19 692	1 299,4	1 317,3

Key:—1. Union republics—2. Number of patients on record at the end of the year—3. Absolute number—4. Per 100,000 people—5. Entire USSR—6. RSFSR—7. UkSSR—8. BSSR—9. UzSSR—10. KaSSR—11. GSSR—12. AzSSR—13. LiSSR—14. MSSR—15. LaSSR—16. KiSSR—17. TaSSR—18. ArSSR—19. TuSSR—20. ESSR

Table 8. Number of People Who Died Less than One Year after Diagnosis of Malignant Carcinoma, Per 100 People Diagnosed for the First Time (One-Year Mortality) in 1981 (Based on Data Supplied by the Facilities in the USSR Ministry of Health System)

(1) Соединенные республики	(2) Все злокачественные новообразования (140—209)	(3) В том числе злокачественные опухоли				
		(4) желудка (141)	(5) трахеи, бронхов, легкого (162)	(6) молочной железы (174)	(7) шейки матки (180)	(8) лимфатической и кроветворной тканей (200—209)
(9) В целом по СССР	34,6	52,8	51,3	10,0	11,7	37,8
(10) РСФСР	35,5	53,7	50,8	9,8	11,9	39,2
(11) УССР	34,1	53,6	54,0	11,2	11,1	38,7
(12) БССР	28,8	44,0	43,4	7,6	7,3	32,8
(13) Узбекская ССР	34,4	53,0	51,6	13,6	13,8	35,3
(14) Казахская ССР	33,3	49,1	49,6	8,8	11,7	38,0
(15) Грузинская ССР	23,4	49,8	50,0	3,8	8,9	17,0
(16) Азербайджанская ССР	30,6	57,0	60,3	16,2	21,7	32,7
(17) Латвийская ССР	36,2	37,4	40,6	7,2	10,9	39,6
(18) Молдавская ССР	27,2	45,9	42,2	9,5	10,1	25,4
(19) Литовская ССР	34,3	54,0	52,1	13,5	12,2	36,0
(20) Киргизская ССР	35,7	55,6	51,0	10,7	15,0	34,4
(21) Таджикская ССР	28,4	43,8	46,6	7,9	4,4	33,9
(22) Армянская ССР	28,3	40,4	48,2	6,9	9,6	35,8
(23) Туркменская ССР	51,8	65,4	67,9	15,8	23,9	53,4
(24) Эстонская ССР	41,3	65,1	67,3	13,6	31,0	39,7

Key:—1. Union republics—2. All malignant carcinomas (140-209)—3. Malignant tumors—4. Stomach (141)—5. Trachea, lung (162)—6. Mammary gland (174)—7. Cervix (180)—8. Lymphatic and hematopoietic tissue (200-209)—9. Entire USSR—10. RSFSR—11. UkSSR—12. BSSR—13. UzSSR—14. KaSSR—15. GSSR—16. AzSSR—17. LiSSR—18. MSSR—19. LaSSR—20. KiSSR—21. TaSSR—22. ArSSR—23. TuSSR—24. ESSR

Table 9. Proportion (in Percent) of Posthumously Recorded Malignant Carcinomas Among All Patients with First-Time Diagnosis of Malignant Carcinoma

(1) Союзные республики			(2) Союзные республики		
	1980 г.	1981 г.		1980 г.	1981 г.
(3) В целом по СССР	2,0	2,0	Литовская ССР (11)	0,6	0,5
(4) РСФСР	1,4	1,3	Молдавская ССР (12)	0,3	0,5
(5) УССР	2,9	3,3	Латвийская ССР (13)	1,6	1,5
(6) БССР	0,7	0,5	Киргизская ССР (14)	3,9	2,8
(7) Узбекская ССР	0,8	0,6	Таджикская ССР (15)	4,7	3,0
(8) Казахская ССР	5,1	4,2	Армянская ССР (16)	2,6	2,9
(9) Грузинская ССР	3,1	2,0	Туркменская ССР (17)	8,0	4,1
(10) Азербайджанская ССР	6,1	6,7	Эстонская ССР (18)	5,1	4,5

Key:—1. Union republics—2. Union republics—3. Entire USSR—4. RSFSR—5. UkSSR—6. BSSR—7. UzSSR—8. KaSSR—9. GSSR—10. AzSSR—11. LiSSR—12. MSSR—13. LaSSR—14. KiSSR—15. TaSSR—16. ArSSR—17. TuSSR—18. ESSR

Table 10. Network of Oncological Facilities (All Departments) in the USSR and the Union Republics (at the End of the Year)

(1) Союзные республики	(2) Число онкологических диспансеров		(3) Число онкологических диспансеров отделений (кабинетов) больниц		(4) Число мест для онкологических больных			
					(5) Абс. число, тыс.		(6) на 10 000 жителей	
	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.	1980 г.	1981 г.
(7) СССР	249	252	3509	3798	56,3	57,7	2,1	2,2
(8) РСФСР	119	119	1952	2044	30,7	31,2	2,2	2,2
(9) УССР	46	46	656	715	10,9	11,2	2,2	2,2
(10) БССР	11	12	78	94	2,3	2,3	2,4	2,4
(11) Узбекская ССР	17	17	218	241	2,7	2,7	1,7	1,6
(12) Казахская ССР	18	19	181	225	2,7	2,8	1,8	1,8
(13) Грузинская ССР	4	4	82	90	1,0	1,0	1,9	1,9
(14) Азербайджанская ССР	11	11	41	55	1,1	1,1	1,7	1,8
(15) Литовская ССР	3	3	7	9	1,0	1,0	2,9	2,9
(16) Молдавская ССР	1	1	41	44	0,5	0,6	1,3	1,6
(17) Латвийская ССР	4	4	35	40	0,8	0,8	3,2	3,2
(18) Киргизская ССР	3	3	55	60	1,0	1,0	2,7	2,7
(19) Таджикская ССР	3	4	42	48	0,3	0,3	0,8	0,7
(20) Армянская ССР	3	3	58	61	0,5	0,7	1,4	2,2
(21) Туркменская ССР	4	4	52	59	0,6	0,6	1,9	1,9
(22) Эстонская ССР	2	2	11	13	0,4	0,4	2,5	2,5

Key:—1. Union republics—2. Number of oncological dispensaries—3. Number of oncological dispensaries of departments (offices) of hospitals—4. Number of beds for oncological patients—5. Absolute number, in thousands—6. Per 10,000 people—7. USSR—8. RSFSR—9. UkSSR—10. BSSR—11. UzSSR—12. KaSSR—13. GSSR—14. AzSSR—15. LiSSR—16. MSSR—17. LaSSR—18. KiSSR—19. TaSSR—20. ArSSR—21. TuSSR—22. ESSR

Table 11. Mortality Rate Due to Malignant Carcinomas Among USSR Population

(1) Локализация	(2) (МСКБ-8 1965 г.)	(3) Абс. число, тыс.		(4) на 100 000 жителей	
		1980 г.	1981 г.	1980 г.	1981 г.
5) Все злокачественные новообразования	140—209	371,8	380,4	140,0	142,1
в том числе:					
(6) полости рта и глотки	141—149	7,0	7,1	2,6	2,6
(7) органов пищеварения	150—159	166,6	172,6	62,8	64,5
в том числе:					
(8) пищевода	150	15,0	14,1	5,7	5,3
(9) желудка	151	88,5	87,8	33,3	32,8
(10) кишечника	152, 153	16,6	18,5	6,3	6,9
(11) прямой кишки	154	17,1	18,9	6,4	7,1
(12) органов дыхания	160—163	77,8	80,5	29,3	30,1
в том числе:					
(13) гортани	161	7,0	7,1	2,6	2,7
(14) бронхов, трахеи, легких	162	68,8	71,5	25,9	26,7
(15) костей и соединительной ткани	170, 171	4,2	5,1	1,6	1,9
(16) кожи	172, 173	3,5	3,6	1,3	1,4
(17) молочной железы	174	20,3	20,8	7,6	7,8
(18) женских половых органов	180—184	32,4	33,1	12,2	12,4
в том числе:					
(19) шейки матки	180	12,1	12,2	4,6	4,5
(20) мужских половых органов	185—187	6,0	6,2	2,2	2,3
в том числе:					
(21) предстательной железы	185	5,0	5,2	1,9	1,9
(22) мочевых органов	188—189	13,3	13,7	5,0	5,1
(23) лимфатической и кроветворной ткани	200—209	20,0	20,4	7,4	7,6
в том числе:					
(24) лейкоз	204—207	11,6	11,6	4,3	4,3

Key:—1. Site—2. MSKB-8, 1965—3. Absolute number, in thousands—4. Per 100,000 people—5. All malignant carcinomas—6. Mouth and throat—7. Digestive organs—8. Esophagus—9. Stomach—10. Intestine—11. Rectum—12. Respiratory organs—13. Larynx—14. Bronchi, trachea, lungs—15. Bones and connective tissue—16. Skin—17. Mammary gland—18. Female sex organs—19. Cervix—20. Male sex organs—21. Prostate gland—22. Urinary organs—23. Lymphatic and hematopoietic tissue—24. Leukemias

Table 12. Methods of Treating Malignant Carcinoma Patients (1981)

(1) Локализация	(2) МСКБ-8	(3) Число больных, завершивших специальное лечение по поводу злокачественных новообразований													(19) Комбинированное лучевое лечение	(20) Комбинированное хирургическое и лучевое	(21) Прочие методы лечения
		(4) Всего		(5) Только хирургическое	(6) Только лучевое				(7) Комбинированное (хирургическое и лучевое)								
		(9) Абс. число	(10) %		(11) Дистанционная гамма-терапия	(12) Рентгено-терапия	(13) Сочетанное		(14) Дистанционная гамма-терапия	(15) Рентгено-терапия	(16) Сочетанное лучевое лечение						
							(17) Контактная и дистанционная гамма-терапия	(18) Контактная и рентгено-терапия									
(22) Все злокачественные опухоли	140—199	390 057	100	38.9	8.7	16.9	8.9	1.0	9.7	2.1	1.4	13.8	11.3	0.0			
(23) В том числе у детей до 14 лет		1 427	100	34.3	6.3	4.8	—	0.0	10.0	2.9	0.9	30.7	30.3	—			
(24) по месту рта	140—149	22 143	100	9.3	17.5	49.0	2.1	0.9	6.8	7.6	0.9	1.5	4.4	8.0			
(25) органов пищеварения	150—159	82 041	100	16.6	7.9	1.1	0.4	0.2	3.1	0.5	0.4	30.1	10.7	8.0			
(26) органов дыхания:	160—169	49 351	100	16.1	22.3	2.9	0.7	0.2	7.8	1.1	0.4	37.6	10.9	0.0			
(27) гортани	161	9 743	100	13.9	43.3	6.5	0.6	0.2	30.4	2.9	0.7	4.1	8.4	—			
(28) легких	170, 173	64 611	100	25.7	2.1	62.9	0.5	0.2	1.4	6.0	0.2	1.0	0.9	0.1			
(29) бронхов и легких	174	40 412	100	19.8	4.0	1.0	0.3	0.0	30.3	6.3	0.6	6.1	31.6	0.0			
(30) мочеполовых органов:	180—189	75 086	100	19.0	5.1	1.4	25.1	3.7	13.8	2.3	4.9	11.2	13.5	0.0			
(31) шейки матки	190	37 409	100	6.8	3.8	1.2	39.6	7.9	9.5	1.1	5.8	1.2	3.0	0.0			
(32) прочих женских половых органов	191, 192, 194	14 782	100	16.1	4.3	2.1	4.4	1.1	6.3	2.6	2.4	38.0	34.4	0.0			
(33) почечного пузыря и прочих мужских органов	180, 189	12 948	100	43.6	11.3	1.7	0.5	0.4	15.0	3.2	1.0	10.6	12.9	0.0			
(34) мозга и других органов нервной системы	191, 192	3 629	100	53.5	11.7	2.4	0.3	0.1	14.8	8.5	0.2	5.7	5.1	—			
(35) опухолей лимфатической и кроветворной тканей:	200—209	20 719	100	1.8	6.8	1.3	0.3	0.0	1.4	0.3	0.1	78.0	12.6	0.0			
(36) в том числе у детей до 14 лет		2 376	100	1.8	4.7	1.0	0.1	0.0	1.1	0.4	0.2	75.5	15.3	0.0			

Key:—1. Site—2. MSKB-8—3. Number of patients who have completed special therapy for malignant carcinoma—4. All methods—5. Absolute number—6. Percentage—7. Specific treatments—8. Surgery only—9. Irradiation only—10. Remote gamma therapy—11. X-ray—12. Combined irradiation—13. Contact and remote gamma therapy—14. Contact gamma therapy and deep x-ray therapy—15. Combined surgery and irradiation—16. Remote gamma therapy—17. X-ray therapy—18. Combined irradiation—19. Chemotherapy—20. Complex therapy—21. Other methods of treatment—22. All malignant tumors—23. All malignant tumors in children under 14—24. Mouth—25. Digestive organs—26. Respiratory organs—27. Larynx—28. Skin—29. Mammary gland—30. Urogenital organs—31. Cervix—32. Other female sex organs—33. Urinary bladder and other urinary organs—34. Brain and other parts of the nervous system—35. Tumors of lymphatic and hematopoietic tissue—36. Tumors lymphatic and hematopoietic tissue in children under 14

Table 13. Methods of Treating Malignant Carcinoma Patients
(Based on Data Supplied by Oncological Facilities of the USSR Ministry of Health System)

(1) Country	(2) Total number of patients who have completed special therapy for malignant carcinoma (1955-59)											
	(3) Total	(4) Specific methods					(5) Combined irradiation therapy			(6) Chemotherapy	(7) Complex therapy	(8) Other methods
		(9) Surgery only	(10) Irradiation only	(11) Irradiation only		(12) X-ray therapy						
				(13) Contact and deep gamma therapy	(14) Other methods	(15) Contact and deep gamma therapy	(16) Other methods					
(17) USSR = USSR	200 776	26.7	6.5	14.2	5.4	0.9	9.8	2.9	1.3	16.9	11.6	0.9
(18) RSFSR	204 686	26.9	6.4	15.1	5.5	0.8	9.8	2.5	1.2	15.4	10.9	0.9
(19) USSR	66 686	24.0	6.6	14.0	4.9	1.0	7.8	2.7	1.2	23.6	13.1	—
(20) BSSR	12 261	16.6	1.7	14.3	0.7	0.4	12.1	0.9	0.3	26.6	16.2	—
(21) Ukraine CP	9 066	12.1	10.2	12.7	4.9	1.2	7.9	2.9	1.9	26.7	14.5	—
(22) Kazan CP	19 276	19.6	14.3	19.5	6.2	2.0	6.9	2.4	1.2	17.9	12.9	—
(23) Tatarstan CP	4 666	27.2	5.1	19.6	2.4	0.7	9.7	2.6	2.0	22.6	10.9	—
(24) Azerbaijan CP	4 466	16.6	7.7	18.4	2.8	0.5	7.7	0.2	1.4	24.9	12.8	—
(25) Armenia CP	7 466	19.9	6.9	19.6	2.9	0.2	15.5	1.4	0.2	19.5	16.2	—
(26) Georgia CP	6 466	24.4	5.2	11.2	4.2	2.5	4.1	4.5	2.4	29.2	11.9	—
(27) Azerbaijan CP	4 662	26.6	4.2	13.7	3.7	0.2	11.9	1.4	0.7	22.7	16.9	—
(28) Kyrgyzstan CP	2 966	17.9	11.9	19.9	6.9	0.4	6.1	2.9	0.7	14.5	18.5	—
(29) Tadzhikistan CP	1 666	17.4	7.2	24.9	4.4	0.5	4.8	4.8	—	24.9	7.2	5.9
(30) Armenia CP	2 272	26.7	7.1	16.2	2.4	1.1	12.4	2.2	7.1	17.9	9.9	—
(31) Turkmenistan CP	2 066	11.2	16.0	14.2	2.9	0.6	4.8	1.2	2.4	22.2	4.2	—
(32) Dagestan CP	2 966	27.4	9.5	11.2	2.2	1.2	10.7	1.9	0.2	19.2	14.2	—

Key:—1. Union republics—2. Number of patients who have completed special therapy for malignant carcinoma—3. All methods—4. Specific methods—5. Surgery only—6. Irradiation only—7. Remote gamma therapy—8. X-ray therapy—9. Combined irradiation therapy—10. Contact and remote gamma therapy—11. Contact therapy and deep x-ray therapy—12. Combined surgery and irradiation—13. Remote gamma therapy—14. X-ray therapy—15. Combined irradiation—16. Chemotherapy—17. Complex therapy—18. Other methods of treatment—19. Entire USSR—20. RSFSR—21. UkrSSR—22. BSSR—23. UzSSR—24. KazSSR—25. GSSR—26. AzerbSSR—27. LiSSR—28. MSSR—29. LaSSR—30. KiSSR—31. TaSSR—32. ArSSR—33. TuSSR—34. ESSR

Footnotes

1. The standard was the age composition of the population of both sexes in 46 countries, published by M. Segi [15]

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Genetics Laboratory Opens for Alcoholism Research

18400277 Moscow ZNANIYE-SILA in Russian No 12, Dec 87 pp 12-14 Research Center of Biomedical Problems of Prevention of Intoxication and Alcoholism in Moscow now has a genetics laboratory. This article described an interview, conducted by A. Rylov, with Valentina Dmitriyeva Moskalenko, director of the laboratory, as she described

[Article by V. Moskalenko, Doctor of Medical Sciences: "Bilateral and Double Edged"]

[Abstract] The recently created All-Union Scientific problems arising in relation to attempts to study the role of heredity in the sociobiological setting of drunkenness and alcoholism. It was reported that, of 318 pregnant women alcoholics examined in one Soviet hospital in 1965, 60 percent discontinued treatment; 12 pregnancies ended in miscarriage or still-births and more than 1/2 of the surviving children were mentally retarded, suffered from epileptic seizures or had brain damage. In 720 of 800 couples whose children were enrolled in Kamchatka school for mentally retarded children, one or both parents were drunk when conception occurred. Such children are most difficult to treat. Biochemical studies of causes of congenital anomalies related to alcoholic syndrome were conducted by Irina Petrovna Anokhina before establishment of the laboratory but results are still meager. Moskalenko characterized alcoholism as a disease with hereditary predisposition but not as a congenital disease. Hereditary factors are twice as important as environmental and social factors. Moskalenko said that the trait most frequently transferred by inheritance in relation to alcoholism is complete intolerance of alcohol. Genetic studies are aimed at determining what features of alcoholism are controlled by the environment and what by heredity. At present, only environmental factors can be managed. I. P. Anokhina proposed a "brain model" of inclination to alcoholism and "a hangover syndrome" in 1975 and applied it to the problem of alcoholism. These findings may be used practically to

detect persons at high risk of becoming alcoholics. There are moral and ethical problems as well as scientific problems to be solved before widespread testing can begin.

02791

Care of Newborns and Pediatric Diseases

18400223 Moscow IZVESTIYA in Russian

17 Jan 88 p 3

[Article by S. Tutorskaya: "From the First Breath"]

[Abstract] Soviet pediatrician V. Tobolin was interviewed on the subject of neonatal care, care of premature babies, equipment and special services required for taking care of such infants and similar measures proposed years ago by Tobolin but dropped by the authorities for supposedly budgetary reasons. The entire pediatric and neonatal care was closed as a specialty and only recently was it brought back to the forefront, thanks to "Glasnost." Inadequate funding of the neonatal program (only 4 kopeks per day per infant for medications) is the principal cause of most of the problems; specialized equipment is not available when needed, sterile disposables are too expensive to buy for normal use. The stethoscope continues to be the principal examination instrument even though one third of all premature babies show serious disorders of the nervous system, another 40 percent show other problems. Infections are very serious because some bacteria, dormant for years, can be reactivated. Some specialized equipment, even though developed domestically, is not being manufactured at all. There simply is no program in the Soviet

Union to take care of the rehabilitation and monitoring of the development of premature children during the early formative years or of the children born to women with serious systemic diseases. Even greater problems are said to exist in the rural areas.

7813/9604

Evaluation of RSFSR Medical Research

Institutes: Management Abuses

18400219 Moscow SOVETSKAYA ROSSIYA in

Russian 22 Dec 87 p 2

[Article by V. Lysenko: "Metastases of Registrations"]

[Abstract] In recent months the RSFSR National Audit Committee reviewed a large number of scientific research institutes of the Health Ministry to determine the effectiveness of the medical forces in the Russian Federation, especially with respect to any effect on practical medical care. One of the yardsticks used was the utilization of clinical beds. What became immediately obvious was the vast abuse of the system: misappropriations of funds, fictitious beds and nonexistent patients, overhiring for nonexistent jobs resulting in an inability to gainfully employ those hired, double and triple entries in the books, none of which reflected the real situation, falsification of data and collusion to defraud involving entire organizational units. These problems are in direct conflict with the decisions of the Central Committee of the CPSU and must be corrected.

7813/9604

Small Doses of Ionizing Radiations and Mutagenesis

18400273a Moscow DOKLADY AKADEMII NAUK SSSR in Russian Vol 298, No 3, Jan 88 (manuscript received 16 Sep 87) pp 742-745

[Article by V. A. Kalchenko, Ye. A. Fedorov (deceased), and N. P. Dubinin, academician, Institute of Evolutionary Animal Morphology and Ecology imeni A. N. Severtsov, USSR Academy of Sciences; Institute of General Genetics imeni N. I. Vavilov, USSR Academy of Sciences, Moscow]

[Abstract] Mutagenesis was studied in *Centaurea scabiosa* L. and *Pinus sylvestris* L. subjected to prolonged, chronic irradiation from incorporated radionuclides ^{90}Sr - ^{90}Y , artificially applied to the soil. Absorbed doses were determined by use of thermoluminescent microdosimeters with LiF, placed in points of growth and other organs of the plants. Mutations were established by electrophoresis on polyacrylamide gel with subsequent

histochemical staining. The study showed that prolonged, chronic irradiation of *C. scabiosa* in doses of 3×10^{-4} , 40×10^{-4} and 70×10^{-4} Gy/day increased the frequency of all types of mutations in locus Lap 10-, 35- and 83-fold, respectively, in comparison with the control. *P. sylvestris* was irradiated in much smaller doses. Doses of 2×10^{-5} , 10×10^{-5} and 15×10^{-5} Gy/day increased the frequency of all types of mutations in 9 loci 3.6-, 6.8- and 8.1-fold, respectively, in comparison with the control. Changes in the action of loci designated as "duplications" appeared in *C. scabiosa* shoots and in *P. sylvestris* endosperm at relatively low irradiation doses. Frequency of mutations in *C. scabiosa* at 0.01 Gy per locus with dose power at 0.0003 Gy/day was 2.6 times higher than that at 0.007 Gy/day. Relative frequency of mutations in *P. sylvestris* at 0.01 Gy per locus at dose power of 0.00002 Gy/day was 2.7 times higher than that at 0.000015 Gy/day. The different relative yield of mutations under the effect of small doses was attributed to different characteristics in the action of repair systems. References 15; 5 Russian; 10 Western.

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Physiological and Hygienic Principles of Development of Special Clothing in Relation to Conditions of Thermoneutral and Heating Microclimate

18400296 Moscow GIGIYENA I SANITARIYA in Russian No 2, Feb 88 (manuscript received 1 Jun 87) pp 19-22

[Article by S. P. Raykhman and L. M. Rimskaya, Institute of Biophysics, USSR Ministry of Health, Moscow]

[Abstract] A study of the effect of some hygienic parameters of special clothing on the thermal state of persons working under conditions of thermoneutral and heating

microclimate and verification of principles of designing special clothing suitable for use under these conditions was described and discussed. Three variants of special clothing were studied in the 20-45°C range at moderate humidity. Selection of proper material and appropriate design for clothing suitable for use under these conditions was discussed. Hygienic properties of materials had the parameters: air penetrability from 0 up to 500 $\text{dm}^3/(\text{m}^2 \times \text{s})$ and water absorption from 7 to 70 percent (from 15-160 g/m^2). Mechanisms of thermoregulation between the space under the clothing and the environment were discussed. Figures 2; references 7 (Russian).

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